

FORTIETH ANNUAL REPORT

OF THE

Sanitary Commissioner for the
Government of Bombay,

1903

, III

APPENDICES.



Bombay:

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ANNUAL SANITARY REPORT—1903.

CONTENTS.

SECTION I.—METEOROLOGY—*Nil.*

SECTION II.—EUROPEAN ARMY—*Nil.*

SECTION III.—NATIVE ARMY—*Nil.*

SECTION IV.—JAILS—*Nil.*

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

PARA.	PAGE
1—2. Births and deaths among Europeans and Eurasians	1
BIRTHS.	
3. Number of registered births	1
4. Causes of the low birth-rates	1—2
5. Births by sexes	2
6. Births by years	<i>ib.</i>
7. Births by months	3
8. Birth-rates in urban and rural population	<i>ib.</i>
9. Birth-rates in rural registration circles	<i>ib.</i>
10. Birth-rates in urban and cantonment circles	<i>ib.</i>
11. Still-born	3—4
DEATHS.	
12. Number of deaths	4
13. Deaths by years	<i>ib.</i>
14. Death-rate	<i>ib.</i>
15. Male and female death-rates	<i>ib.</i>
16. Deaths by districts	<i>ib.</i>
17. Deaths by collectorates	<i>ib.</i>
18. Birth and death-rates compared by collectorates	<i>ib.</i>
19. Deaths by ages	4—5
20. Deaths by caste or class	5
21—22. Deaths by sexes	<i>ib.</i>
23. Statistics of Ahmedabad City	<i>ib.</i>
24. Deaths by causes	5—6
25. Deaths by months	6
26—27. Number of circles	<i>ib.</i>
28. Death-rate in rural circles	<i>ib.</i>
29. Death-rate in town circles	<i>ib.</i>
30. Death-rate in cantonments in British territory	<i>ib.</i>

CANTONMENTS IN QUASI-FOREIGN TERRITORY.

31. Statistics of cantonments in quasi-foreign territory	7
---	---

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

32.	Mortality in 1903	...	...	...	...	8
33.	Monthly mortality	...	...	...	...	<i>ib.</i>
34.	Mortality by seasons	...	...	...	...	<i>ib.</i>
35.	Mortality for 21 years from 1883 to 1903 inclusive	...	...	...	...	<i>ib.</i>
36.	Death-rates by collectorates	...	...	...	...	8—9
37.	Mortality in rural circles	...	...	...	...	9
38.	Mortality in towns	...	...	...	...	<i>ib.</i>
38 (a).	Cholera in cantonments	...	...	...	...	<i>ib.</i>
39.	Villages affected by cholera	...	...	...	...	<i>ib.</i>
40.	Collectorates in which cholera first appeared in towns	...	...	...	...	<i>ib.</i>
41.	Collectorates in which cholera first appeared in villages	...	...	...	...	<i>ib.</i>
42.	Attacks and deaths	...	...	...	...	<i>ib.</i>
43.	The cholera epidemic in Sind	...	...	...	...	<i>ib.</i>

SMALL-POX.

44.	Small-pox mortality	...	...	...	...	9—10
45.	Small-pox deaths since 1892	...	...	...	...	10
46.	Deaths by districts and collectorates	...	...	...	...	<i>ib.</i>
47.	Deaths by ages	...	...	...	...	<i>ib.</i>
48.	Origin and spread of the disease and preventive measures adopted	...	...	...	...	<i>ib.</i>

FEVER.

49.	Fever mortality	...	...	...	...	11
50.	Fever deaths since 1892	...	...	...	...	<i>ib.</i>
51.	Deaths by districts and collectorates	...	...	...	...	<i>ib.</i>
52.	Deaths by months	...	...	...	...	<i>ib.</i>
53.	Measures carried on in dealing with "Malarial Fever."	...	...	...	...	11—12

RAINFALL.

54.	Rainfall	12—14
-----	----------	-----	-----	-----	-----	-------

PLAGUE.

55.	Deaths from plague	...	...	...	...	14
56.	Plague deaths since 1893	...	...	...	...	<i>ib.</i>
57.	Deaths by collectorates and districts	...	...	...	...	<i>ib.</i>
58.	Deaths by months	...	...	...	...	<i>ib.</i>
59.	Deaths from plague amongst the inoculated	...	...	...	...	15
60.	Effect of plague on the average annual death-rates	...	...	...	...	<i>ib.</i>

DYSENTERY AND DIARRHŒA.

61.	Deaths from dysentery and diarrhœa	...	...	...	...	15
62.	Deaths since 1892	...	...	...	...	15
63.	Deaths by districts and collectorates	...	...	...	...	<i>ib.</i>
64.	Deaths by months	...	...	...	...	<i>ib.</i>

INJURIES.

65.	Deaths from injuries	...	...	...	...	16
66.	Deaths since 1892	...	...	...	...	<i>ib.</i>
67.	Deaths from injuries for 1902 and 1903 by sexes	...	...	...	...	17
68.	Deaths from snake-bite by collectorates	...	...	...	...	<i>ib.</i>
69.	Details of injuries	...	...	...	...	<i>ib.</i>

RESPIRATORY DISEASES.

70.	Mortality from respiratory diseases	...	...	...	...	17
71.	Deaths by collectorates	...	...	...	...	<i>ib.</i>

CONTENTS.

iii

PARA.

PAGE

OTHER CAUSES.

72. Deaths from other causes	...	...	...	...	17
73. Deaths by collectorates	...	...	...	...	18
74. Deaths from "other causes" since 1892	...	...	...	...	16.

SECTION VII.

74 (a). General history of vaccination	17
--	-----	-----	-----	-----	----

SECTION VIII.

Sanitary Works—Military—*Nil.*

SECTION IX.

Sanitary Works—Civil.

75. Expenditure on sanitary works in municipal towns during 1902-1903	...	...	...	...	19
76. Expenditure on sanitary works by Local Boards	...	...	...	...	<i>ib.</i>
77. Bombay Village Sanitation Act	...	...	...	...	<i>ib.</i>
78. Village Sanitary Inspection Book	...	...	...	...	<i>ib.</i>
79. Introduction to Appendix III	...	...	...	...	<i>ib.</i>

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

80—81. Remarks on personal proceedings	...	...	...	...	20
82. Effect of Plague on Municipalities and Towns	...	...	...	...	<i>ib.</i>
83. Extension of towns and villages	...	...	...	...	<i>ib.</i>
84. Remarks on the registration of vital and mortal statistics	...	...	...	...	<i>ib.</i>
85. Definition of "Still-born"	...	...	...	...	20—21
86. Remarks on the supervision of vaccination work	...	...	...	...	21
87. Remarks on "Sanitary Inspection Books"	...	...	...	...	<i>ib.</i>
88—89. Remarks on the officers of the Department	...	...	...	...	<i>ib.</i>

APPENDIX I.

Annual Report of the Sanitary Board for 1903	1
--	-----	-----	-----	-----	---

APPENDIX II.

Annual Report of the Health Officer of the Port of Bombay for 1903	2—8
--	-----	-----	-----	-----	-----

APPENDIX III.

Table showing the drainage and water-works completed in certain towns	9
---	-----	-----	-----	-----	---

APPENDIX IV.

Births registered in districts	...	...	...	...	10
Deaths registered in districts	...	...	...	...	11
Deaths registered in the districts during each month of the year	...	...	...	...	12
Deaths registered in the districts according to age	...	...	...	...	<i>ib.</i>
Deaths registered in the districts according to classes	...	...	...	...	14—15
Deaths from different causes in the districts and towns	...	...	...	...	16—23
Deaths from cholera in the districts during each month of the year	...	...	...	...	24
Deaths from small-pox in the districts during each month of the year	...	...	...	...	<i>ib.</i>
Deaths from fever in the districts during each month of the year	...	...	...	...	25
Deaths registered from plague in the districts during each month of the year.	...	...	...	...	<i>ib.</i>
Deaths from dysentery and diarrhoea in the districts during each month of the year	...	...	...	...	26

ANNUAL SANITARY REPORT FOR 1903.

SECTION I.—METEOROLOGY.—No remarks.

SECTION II.—EUROPEAN ARMY.—No remarks.

SECTION III.—NATIVE ARMY.—No remarks.

SECTION IV.—JAILS.—No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

EUROPEAN AND EURASIAN VITAL STATISTICS.

1. The European Census population of 1901 in the Bombay Presidency, exclusive of cantonments in quasi-foreign territory, is 18,804. During the year 1903, 270 births and 253 deaths were recorded against 251 and 302 respectively in 1902. The birth-ratio was 14.36 as against 13.35 in 1902, the death-ratio 13.45 as against 16.06 in 1902. By sexes 132 males and 138 females were born against 133 and 118 in 1902. And as regards deaths 148 males and 105 females died against 189 and 113 in 1902.

2. The Eurasian Census population of 1901 is 6,557. During the year 139 births were registered against 140 in 1902, and 150 deaths against 154, the birth-ratios being 21.20 per mille against 21.35 in 1902 and the death-ratios 24.40 against 23.49. Of those born 63 were males and 76 females against 68 and 72 in 1902. As regards deaths 82 males and 78 females died against 81 and 70 in 1902.

NATIVE POPULATION VITAL STATISTICS.

Births.

3. In the Presidency of Bombay, including Sind, during the year 1903 there were 576,949 births registered against 631,393 in 1902, loss by 54,444 than the number registered in the previous year and also less by 42,231 than the decennial mean ending 1902. In only six districts, Thána, Kolába, Ratnágiri, Sukkur, Panch Maháls and Upper Sind Frontier, did the number of births exceed the deaths.

The recorded birth-rate for the year was 31.22 per mille against 34.16 in 1902 and a decennial mean of 32.98. The number of births recorded during the year is less in every Collectorate than in the previous year except in Belgaum, Dhárwár, Bijápur and the Upper Sind Frontier.

4. The low birth-rate for the Gujarát Province, 31.17 per mille, ranging from 38.65 in the Panch Maháls to 26.56 in Ahmedabad and in all the three cities and principal towns except Bulsár Town Circle is ascribed by Major Arnim, Deputy Sanitary Commissioner, "to the increased incidence of plague which was generally distributed throughout the Province, the ratio of deaths from this cause varying from 3.39 per mille in Ahmedabad to as much as 23.64 per mille in Kaira Zillah. In Annual Form No. IV will be noted the very high mortality among women between 20—50 years of age. The heavy incidence of plague

upon pregnant women has been noted by observers of that disease and must, in the case under reference, be the main cause of the reduced birth-rate."

In the Southern Registration District the birth-rate for the whole division was 32.57 per mille ranging from 37.05 in Bijápur to 28.25 in Kánara. The persistently low birth-rate for Kánara is greatly influenced by chronic disease sapping the vitality at the child-bearing period. Malaria and its sequelæ are the primary causes. The registration of births is untrustworthy owing to the immense number of hamlets scattered over the forest areas and the defective nature of the registration system. The low birth-rate combined with the large number of still-births in Kánara has been specially reported on in accordance with Government memorandum No. 398, dated 26th January 1904.

The comparatively high birth-rate of 37.05 in Bijápur shows the population has begun to recover from the effects of the late famine. The true birth-rate of Bijápur in normal years is probably nearer 50 than 40 per mille.

The low birth-rates in Belgaum and Dhárwár were immensely influenced by the terrible mortality from Plague evidenced by the percentage of villages attacked and the ratio per mille of population destroyed. The mortality of women of a child-bearing age was excessive. *Vide* Table IV.

In the Western Registration District the birth-rate reached 37.89 per mille as against 44.91 last year. The plague mortality which undoubtedly affected the birth-rates unfavourably was, however, less widespread and destructive than in the Southern Circle. Lieutenant-Colonel Anderson, Deputy Sanitary Commissioner, observes "in most of the towns birth registration is very imperfectly carried on." * * *

In the Central Registration District the birth ratio was 33.89 as against 35.79 last year. The plague deaths reached 89,365, the disease fell on all Collectorates severely, except Ratnágiri which recorded only 621 deaths. As in other plague-stricken areas this disease was the main cause of the lowered birth-rate. The comparatively low birth-rate for Ratnágiri is greatly due to the migration of people for work in Bombay and elsewhere and imperfect registration in the forest villages and hamlets.

In Sind there was a decrease of 6,612 registered births against last year. The very low birth-rates recorded habitually in Sind are stated by the Deputy Sanitary Commissioner to be due "to the little attention paid to registration by the Tappadars who are entrusted with the work. These officers being already very hard worked and having to remain for some months together at headquarters for Jamábandi find it impossible to attend to the work personally and therefore leave it to their illiterate Kotars to collect the reports of births and deaths. This is particularly obvious in Thar and Párkár." * In some cases it may be also due to the return of Tharis and Marwaris to their homes, who had come in great numbers to Sind owing to scarcity in their native land during the previous years.

5. There were 299,485 male and 277,464 female births recorded during the year against 327,519 and 303,814 in 1902. For every 100 female births there were 107.94 male which results compared with those of European countries is encouraging as denoting considerable accuracy in the registration of the sexes. There is a tendency, however, to slightly favour the males.

Births by Sexes.—
Annual Form I.

6. The following statement shows the number of births recorded in each year since 1893:—

1893	...	664,305	1897	...	629,698	1901	...	465,647
1894	...	660,268	1898	...	582,371	1902	...	631,393
1895	...	674,304	1899	...	685,318	1903	...	576,949
1896	...	691,847	1900	...	505,662			

Since 1896 these figures show the effects of the havoc caused by plague and famine.

7. The monthly distribution of births in 1903 as compared with 1902 and the monthly mean of the previous ten years is given in the following table:—

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Mean for 10 years 1893 to 1902	48,797	44,223	49,219	49,119	52,343	52,381	54,227	54,510	54,181	55,714	53,333	51,000	619,083
1902	50,061	43,115	49,055	51,303	52,515	52,159	53,596	55,489	57,883	58,810	56,330	51,503	631,398
1903	46,874	41,194	42,466	42,345	44,519	45,942	47,095	50,523	51,175	55,110	56,383	53,673	576,919

As showing the effect of season on the fecundity of the married community the table loses much of its interest in the absence of a record of monthly marriages.

Fecundity was highest in November, lowest in February. In 1902 it was highest in October and lowest in February, whilst for the decennial 1893 to 1902 the maximum fecundity shows October to be the favourable month and February the lowest.

8. The recorded birth-rates among the urban and rural populations of the Presidency were 23·56 and 32·37 against 27·09 and 35·23 in 1902. Except in the Collectorates of Dhárwár, Kánara and throughout Sind, except the Upper Sind Frontier, the rural birth-rates exceeded the urban. In Dhárwár and the Upper Sind Frontier the birth-rates were nearly the same, *viz.*, 31·12 and 22·93 respectively in the rural and 31·94 and 22·10 in the urban. The urban rates in the Collectorates of Násik, Ahmednagar, Poona, Sholápur, Ratnágiri, Thar and Párkar are all below 17 per mille whilst in Sind both urban and rural rates are extremely low with the exception of urban Karáchi where births are very well recorded (44·35) and urban Sukkur (37·46). The mortality of women at a child-bearing age from plague and the havoc caused by that disease especially amongst the urban populations together with the scattering of the population outside towns and villages, both lowered the birth-rates and made registration often extremely difficult.

9. In 12 rural registration circles, the birth-rate was above 50 per mille. In 39 it was between 40 and 50 per mille: in 29 it was between 35 and 40; in 54 it ranged from 30 to 35. In 52 it was between 20 and 30 and in 34 it fell below 20 per mille. Of these 34 rural registration circles no less than 33 are in Sind showing how very much behind hand that Province is compared with the Presidency proper. No alteration appears to have taken place in the efficiency of birth registration in rural Sind but the subject is receiving the earnest attention of the Deputy Sanitary Commissioner. In Edalabad, Khándesh and Váda, Thána, the birth-rates were 56·84 and 64·39 per mille respectively.

10. Out of 56 towns and 7 cantonments in the Presidency 3 towns recorded a birth-rate exceeding 40 per mille, *viz.*, Karáchi (44·35), Sukkur (40·01) and Borsad (42·07). Eleven towns returned rates between 30 and 40, 28 between 20 and 30, and the remainder 14 towns and 7 cantonments below 20. Whilst plague created great disturbance in the correct registration of births. Municipalities have much work before them before their birth returns can be accepted as accurate. The Municipalities of Karáchi, Sukkur and Borsad are to be congratulated on the care with which they have carried out their duties.

11. During the year 1903 9,377 or 1·63 per cent. of total births were registered as still-born against 9,545 or 1·51 per cent. in 1902. Of these 5,274 were males and 4,103 females against 5,354 and 4,191 respectively in 1902. The percentage of still-born to born alive is as usual highest in Bombay City and Kánara 11·44 per cent. and 5·36 per cent. respectively compared with 11·49 and 3·76 in 1902. The causes of these exceptional high rates have been specially considered and reported on in accordance with Government Resolution, General Department, No. 3184, dated 19th June 1903. In England where still-births are not specially registered the

proportion is supposed to be about 4 per cent. It will be noticed males outnumber females, probably owing to the greater difficulty in child-birth. This is in accordance with European experience.

Deaths.

12. Among the native population in the rural, town and cantonment circles in the Presidency 811,525 deaths were registered in 1903 as against 721,462 or 90,063 more than in 1902. Of the total deaths no less than 281,269 or 34·66 per cent. were due to plague. Of the total deaths registered 413,783 occurred among males and 397,742 among females against 369,491 and 351,971, respectively, in 1902.

Deaths by years.

1893	...	511,831	1897	...	719,916	1901	...	686,134
1894	...	607,179	1898	...	548,825	1902	...	721,462
1895	...	538,540	1899	...	672,269	1903	...	811,525
1896	...	596,472	1900	...	1,318,783			

13. The following statement shows the number of deaths recorded in each year since 1893 :—

14. The death-rate reached the very high proportion of 43·91 per mille and rose above that of 1902 by 4·87.

15. The rate per mille of males dying to males living was 43·42 and of females dying to females living 44·43. In 1902 these ratios were 38·77 and 39·32 respectively. For every 100 female deaths there were 104·03 of males, but those proportions vary considerably, as in Bombay City the ratio of males to female deaths was 133·79, in Karachi Collectorate 120·27 and in Násik 105·72.

Taking the relative strength of the male and female population as 9,529,472 and 8,951,890 (census 1901) the deaths were 413,783 and 397,742 respectively, the proportion of male to female deaths by this method of calculation being 104·03 (paragraph 3, Government Resolution, General Department, No. 3184 of 19th June 1903).

16. In the Western, Central, Southern Gujarát and Sind Registration Districts the number of deaths recorded in 1903 were 192,649, 217,255, 207,903, 124,652 and 69,066, and their ratios per mille were 43·60, 44·70, 63·10, 46·15 and 21·54 respectively. Excluding Sind the ratios were greatly inflated by plague, 18·39 per mille of population being destroyed in the Central, 32·85 in the Southern, 11·16 in Gujarát and 11·50 in the Western Registration District.

17. Excessive death-rates were recorded in all Collectorates excepting those of Sind, the Panch Maháls and Ratnágiri and ranged from 74·53 per mille in Bolgaum to 29·38 per mille in Kolába. 14 out of the 19 Collectorates of the Presidency proper recorded rates over 40 per mille. The exceptionally low death-rates recorded in the Thar and Pákar and Upper Sind Frontier Collectorates 17·95 and 15·19 respectively point to defective registration.

18. An examination of columns 6 and 7, Annual Form II, shows the death-rates in all Collectorates exceeded the birth-rates except in Thána, Kolába, Ratnágiri, Panch Maháls, Sukkur and the Upper Sind Frontier. In Bombay City the death and birth-rates were 66·99 and 21·19 respectively.

19. Deaths by ages are given in Annual Form IV. Infantile mortality is specially referred to in paragraph 22 in accordance with Government Resolution, General Department, No. 5192, dated 7th September 1901. By reference to Annual Form No. IV it will be seen there were 220,404 deaths of children under 5 years of age which, according to the census of 1901, gives the high death-rate of 97·04 per mille on the population under 5 years. The children under five contributed 27·16 per cent. to the total deaths. The deaths of adults, 20—30

years of age, were also excessive. The influence of the destructive plague epidemic during the year is seen throughout the mortality exhibited in this table.

20. The deaths by classes in each Collectorate are recorded in Annual Form V, Appendix IV. It is not known how far Deaths by caste or class. jungle tribes are now returned as Hindus, whereas at the census they were placed under "Other classes" If to any extent the death-rates for the latter would, of course, be too low, while for Hindus they would be too high, *vide* paragraph 4, Government Resolution, General Department, No. 3184, dated 19th June 1903.

21. The total deaths according to the age and sex distribution of the population is given in Annual Form IV, Appendix IV. The mortality of females at the child-bearing ages is excessive. It was particularly so in the Belgaum and Dhárwár Collectorates, which were so severely smitten by plague. The high mortality of child-bearing women had a distinct effect on lowering the birth-rate in all affected districts.

22. The mortality of infants in relation to the births registered for the year 1903 is briefly commented on in accordance with the orders contained in Government Resolution, General Department, No. 5192, dated 7th September 1901. The results will be more valuable when the registration of the basis of calculation is more reliable and the ages of the infants more correctly given by informants.

The mortality was excessive for the whole Presidency in both sexes, *viz.*, 219.57 and 206.70 per 1,000 births respectively, and may be ascribed in great measure to bad sanitary arrangements and those special agencies which destroy infant life and which vary in different localities. Some of the principal causes are improper and insufficient food, bad management, use of opiates, neglect, early marriages and debility of mothers. The widespread influence of plague struck severely at both mothers and infants. All districts show abnormal rates except Ratnágiri, the Panch Maháls and the Upper Sind Frontier where the mortality was recorded as below 150 per 1,000 births. In the remaining Collectorates, excluding Bombay, the rates reach as high as 301.09 male and 28.897 female in Broach to 162.88 male and 141.15 female in Bijápúr. In Bombay City the ratios returned each 547.48 and 527.57 respectively. The causes of the apparent excessive mortality of infants in Bombay City and Ahmedabad were specially reported on in accordance with Government Resolution No. 3184, dated 19th June 1903.

23. In accordance with paragraph 2, Government Resolution No. 1763, dated 7th April 1904, a note on the statistics of Ahmedabad Town is given. The general death-rate for 1903 continued excessive, *viz.*, 60.26 per mille against a mean for the last five years of 81.52. Plague caused 541 deaths, 6,611 deaths were ascribed to fever and 1,909 to respiratory diseases, the correctness of which must be received with reservation. The results of the report by the Civil Surgeon on the infantile mortality, dated 17th December 1903, and the orders issued by Government, dated 7th April 1904, for the improvement of registration and enforcement of by-laws have not yet had time to operate. The town still continues very unhealthy. It is regretted the orders contained in the above Resolution were not received early enough for obtaining full information regarding the statistics of Ahmedabad which, however, will be furnished in the next annual report.

24. The subjoined table shows the deaths in 1903 arranged according to causes and contrasted with the results for 1902 and Deaths by causes. with the mean of the preceding five years:—

Causes of deaths.	MEAN FOR 5 YEARS, 1898 TO 1902.		1902.		1903.	
	Number.	Ratio per mille.	Number.	Ratio per mille.	Number.	Ratio per mille.
Cholera	38,733	2·07	3,229	0·17	1,825	·09
Small-pox	4,239	23	2,189	0·12	2,732	·15
Plague	105,799	5·66	184,752	10·00	281,269	15·22
Fevers	310,175	16·60	270,845	14·66	259,701	14·05
Dysentery and diar- rhoea	98,730	5·02	58,682	3·17	55,443	3·00
Respiratory diseases...	...	...	59,379	3·21	59,349	3·21
Injuries	7,367	·39	7,434	0·40	6,693	·37
Other causes ...	229,452	12·28	134,952	7·30	144,510	7·82
All causes ...	789,405	42·25	721,462	39·04	811,525	43·91

For comments on the causes of death, *vide* Section VI.

25. The maximum mortality (92,785) occurred in January and the minimum (38,803) in June. In 1902 the maximum and minimum occurred in December and June respectively (85,005) and (34,462).
Deaths by months.—
Annual Form III.

26. Statistical returns are received from 220 rural and 56 town circles, from 7 cantonments in British and 8 in foreign territory. The population according to the census of 1901 of the rural circles was 16,065,004, of the town circles 2,347,378 and of the cantonments in British territory 68,980 exclusive of Europeans and Eurasians or a total of 18,481,362. The population of the 8 cantonments in foreign territory was 120,736.
Number of circles.

27. The recorded death-rates among the urban and rural population and the 7 cantonments in British territory are given in Table VI, Appendix IV. The death-rates for the 8 cantonments in foreign territory will be found in paragraph 31. The urban and rural death-rates were 59·87 and 41·51 per mille as against 60·22 and 35·85 in 1902. Only in six Collectorates out of 25 were the rural death-rates in excess of the urban.

28. In 90 or 40·91 per cent. of rural registration circles the mortality rose above 40 per mille. In 46 the death-rate was between 30 and 40, in 15 it was between 20 and 30, in 30 between 20 and 25, whilst in 39 the record was below 20 per mille of which 34 were in Sind.
Death-rate in rural circles.

29. Excessive death-rates are recorded in most town circles no less than 18 towns showing death-rates over 60 per mille and 11 with 70 and over. The death-rates in Athni and Ránebennur Towns reach the appalling figures of 138·83 and 123·90 per mille respectively. The mortality in these towns was very severe from plague. In Athni the total deaths were 1,542 of which 1,165 were caused by plague. In Ránebennur the total deaths were 1,840 of which 1,379 were due to plague. A reference to Annual Form No. VI shows that most of the large towns were severely affected by plague mortality Bombay, Poona, Ahmednagar, Sholápur, Pandharpur, Surat, Nadiád, Gadag, Hubli and Dhárwár.
Death-rates in town circles.

30. During the year under report the recorded death-rate from all causes in Málegaon reached the high figure of 74·78 whilst Poona (45·09), Kirkee (49·18) and Belgaum (38·31) all recorded excessive rates. The cantonments of Devláli and Ahmedabad were comparatively healthy with 19·35 and 18·23 rates respectively.
Death-rate in cantonments in British territory.

Cantonments in Quasi-Foreign Territory.

31. The following table shows the vital statistics of the civil population of those cantonments which are situated in quasi-foreign territory. The total number of births registered in these cantonments during the year 1903 was 2,108 against 2,676 in 1902, the birth-rate being 17·46 per mille as against 22·16 in 1902. There were 10,127 deaths giving a ratio of 83·86 per mille against 3,592 deaths and ratio of 29·75 in 1902.

“Plague” and “fevers” were the chief causes of the high mortality no less than 5,474 deaths from plague having occurred out of 10,127 total deaths or 54·05 per cent.

In Mhow 5,135 deaths from plague occurred out of a population of 34,740 and was the main cause of the appalling death toll of 164·31 per mille. Neemuch recorded 300 deaths from plague out of a population of 14,624 and 1,086 from fevers. The fever mortality reached 74·26 per mille. It is quite possible cases of pneumonic plague were recorded under “fevers” as so high a death-rate as 74·26 per mille could scarcely have been due to malarial fevers :—

Cantonments.	Population according to census of 1901.	Area in square miles.	Average population per square mile.	Number of births.	Ratio of births per 1,000 of population.	NUMBER OF DEATHS FROM							RATIO OF DEATHS PER 1,000 OF POPULATION.									
						Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Injuries.	Other causes.	All causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Injuries.	Other causes.	All causes.	
Aden.	Municipal limits ...	36,323	67·	537	603	16·08	...	9	5	584	226	12	908	1,741	...	25	14	16·08	6·22	33	25·00	43·02
	Purely civil population of cantonments ...	206	7·	28	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	4·85	4·95	
Baroda	2,704	1·	2704	53	19·60	...	...	...	14	2	...	66	8	...	...	...	5·18	74	...	24·40	30·32
Bhuj	741	1·18	638·79	20	26·99	...	...	...	4	...	...	6	10	...	...	...	5·40	...	...	8·09	13·40
Deesa	8,560	5·	1,713·20	105	12·26	...	...	18	160	7	6	44	237	...	...	2·10	18·68	82	70	3·13	27·43
Mhow	34,740	6·	5,790·	232	6·08	...	...	5,135	233	30	5	373	5,706	...	...	147·81	6·71	67	14	8·73	164·31
Nasirabad	22,404	8·58	2,631·03	759	33·71	...	...	16	386	53	6	330	806	...	...	71	10·27	2·53	27	15·90	45·79
Neemuch	14,624	4·52	3,233·40	236	16·14	...	...	300	1,086	7	2	141	1,536	...	...	20·51	74·26	49	14	9·64	105·03
Rajkot	338	·56	602·59	10	29·50	...	...	...	2	1	...	3	...	...	...	...	5·92	2·90	...	8·87	17·76
Total	120,783	100·82	17,870·06	2,108	17·46	...	...	5,474	2,449	331	81	1,833	10,127	...	...	43·33	20·23	2·74	23	13·18	83·86

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

32. In Annual Form No. VII are set forth the deaths from cholera for each district by months, the number of registration circles affected, and the number of villages from which cholera was reported, etc.

Mortality in 1903. In the year 1903 there were 1,825 deaths recorded as due to cholera compared with 3,229 in 1902. The disease was practically confined to Sind where there was a slight but distinct epidemic. A reference to Table No. VII will show the disease present in 9 districts in the Presidency proper but quiescent—only 73 deaths being recorded in these collectorates. The epidemic which last year caused 3,229 deaths was also practically confined to Sind which bore 95·41 per cent. of the total cholera mortality. In the year under report, 96·00 per cent. of the mortality likewise occurred in this province, whilst 9 districts recorded the remaining deaths. Table No. VII, both for 1903 and last year, is instructive in showing the localization of the epidemic to practically one province and at the same time demonstrating the various foci of the disease, in its quiescent state, in various districts over the Presidency.

The tables likewise show the rise and fall of both epidemics in Sind and their practical extinction in both years during the cold weather.

33. During the first four months of the year, the disease was absent from the whole Presidency excepting in Bombay City (5 deaths) and a single death recorded from Broach Town. From May to October the cholera poison became active in Sind alone, and was chiefly confined to the Sukkur, Larkhāna and Upper Sind Frontier Districts. In the terrific heats of June, July and August the disease was at its worst, destroying 1,141 persons or 65·12 per cent. of the total mortality during the epidemic.

34. There is a distinct relation between cholera and seasons. In the rainless province of Sind the seasons differ from those of the Presidency in their excessive high temperatures in the hot months and the very great alternations in the cold. The air is very dry. In the epidemic which occurred in Sind, the disease was active from May to October and was at its maximum during the hottest months of this period—June—August. In the epidemic of 1902 it showed the same seasonal prevalence.

35. The following table shows the total number of deaths from cholera in each of the twenty-one years ending 1903 :—

1883 ... 37,954	1888 ... 36,500	1892 ... 42,900	1896 ... 35,404	1900 ... 163,889
1884 ... 13,804	1889 ... 32,431	1893 ... 18,853	1897 ... 57,103	1901 ... 13,600
1885 ... 37,287	1890 ... 3,259	1894 ... 33,588	1898 ... 4,363	1902 ... 3,229
1886 ... 167	1891 ... 17,850	1895 ... 8,890	1899 ... 8,579	1903 ... 1,825
1887 ... 25,711				

This record shows that cholera is indeed endemic in the Presidency lighting up into epidemic lasting generally three years. If the deaths are multiplied by 2 on the assumption of the general cholera mortality being 50 per cent., some idea may be formed of the terrible amount of sickness and suffering caused by this disease.

36. Fifty-two per cent. of the collectorates returned cases, but in only three districts of Sind, *viz.*, Sukkur, Larkhāna and Upper Sind Frontier was the disease epidemic. Karāchi

Death-rates by Collectorates.

which recorded an outbreak destroying 4·47 per mille of population last year was entirely free in 1903. The mortality in Sukkur was 1·24, in Lárkhána 1·39 and in the Upper Sind Frontier 0·56 per mille of population.

37. Out of 220 rural circles, 28 or 12·73 per cent. were attacked against 34 or 15·45 per cent. last year. Of the 28 affected rural circles, the chief incidence of the disease fell on those of Hyderabad, Sukkur, Lárkhána and Upper Sind Frontier (78·57 per cent). The newly constituted district of Lárkhána was the worst affected with 10 rural circles attacked.

38. Out of 56 town circles in the Presidency, 10 were affected by cholera against 8 last year. The disease was trivial in Belgaum, Nagar, Bijápur and Broach with a single death in each. Poona returned but 2 deaths, whilst Bombay City was particularly free from the disease with only 17 deaths. The chief mortality occurred in Shikárpur (2·30), Sukkur (2·65), Lárkhána (2·54) and Jacobabad (3·08) per mille of population.

Cholera in Cantonments. 38 (a) No cholera occurred in any of the 7 cantonments in the Presidency.

39. The disease was very local, attacking but 160 out of 25,846 villages in the whole Presidency, and of these, 152 or 95 per cent. were in Sind.

40. Cholera was present in Bombay City on 15th January 1903, Broach, 6th February, Shikárpur Town 3rd May, Belgaum 19th May, Bijápur 13th June, Poona 27th June and Ahmednagar 14th July.

41. Thul (old), a village in the Upper Sind Frontier, was the first attacked, then Alijatoi in Lárkhána on 25th May, Kamalani in Hyderabad 3rd July, Utrangaogarhad in Khándesh on 14th August, Kumbhavali in Thána 4th September, and Hebbari in Kánara 8th October.

42. The total number of recorded attacks from cholera was 2,768 and 1,825 deaths giving a fatality of 65·93 per cent. which is high. It is most probable all attacks were not reported, *e.g.*, Thána reported 8 attacks and 8 deaths, Bombay City 24 attacks to 17 deaths, whilst Sind showed 2,624 attacks to 1,752 deaths or a fatality of 66·77 per cent.

43. With regard to the epidemic in Sind, Captain Forbes Knapton, acting Deputy Sanitary Commissioner, made a careful investigation. He states "The first case was reported from old Thul of the Jacobabad District as imported from Hardwár on the Ganges. Another imported case coming from the same origin, *viz.*, Hardwár, was reported from Shikárpur Town on 3rd May. Local cases and deaths then began to occur in Shikárpur Town. Sukkur was next attacked from Shikárpur, which in its turn affected Rohri. The disease then gradually spread into the rural circles of the Sukkur, Lárkhána and other districts." The Deputy Sanitary Commissioner visited Sukkur in May and advised and consulted with the local authorities. Instructions were issued to all concerned on the measures to be adopted in dealing with the disease, but no special medical officers were engaged in the investigation or treatment of the disease.

An inquiry into the influence of local water-supplies on the propagation of the disease would have been interesting and valuable, but until the strength of the Department in Sind is increased, scientific inquiries into the local causes of cholera epidemics is impracticable.

SMALL-POX.

44. There were 2,732 deaths from small-pox (1,488 males and 1,244 females) against 2,189 in 1902 and a decennial mean of 4,049. Of the 2,732 deaths, 1,460 or 53·44 per cent.

FEVER.

40. There were 259,704 deaths registered under the heading "Fever"
Fever mortality. (134,048 males and 125,656 females) against 270,845
in the last year and a decennial mean of 354,577.

50. The number of deaths registered from fever
Fever deaths since 1892. in each year since 1892 is as follows :—

Year.	Number of deaths from Fever.	Year.	Number of deaths from Fever.
1892	438,038	1898	216,324
1893	361,160	1899	228,438
1894	429,094	1900	543,319
1895	388,843	1901	291,951
1896	410,143	1902	270,845
1897	405,652	1903	259,704
Total	2,432,930	Total	1,810,581
Mean	405,488	Mean	301,763

51. The death-rate from fevers by Registration Districts and Collectorates
Deaths by Registration Districts and Collectorates. is set forth in Annual Form No. IX. The total fever
death-rate for the whole Presidency was 14·05 per
mille as compared with 14·66 last year, and the decen-
nial mean of 18·91 per mille.

The highest mortality from fevers was recorded in Ahmedabad (31·19),
Broach (24·83), Lárkhána (21·51) and Surat (18·14).

All the districts in Gujarát and Sind (except Sukkur) and the collectorates
of Khándesh, Poona, Sholápur, Kánara and the city of Bombay recorded lower
rates than last year. The remaining districts showed higher rates—Násik ex-
cepted, in which they are equal.

In the absence of registration supported by medical diagnosis, it is,
of course, impossible to ascertain what proportion of fevers in these districts are
due to Malaria, Enteric, Measles, or other well-known and differentiated febrile
diseases.

I agree with the remarks made by Major Arnim, Deputy Sanitary Commis-
sioner, Gujarát, who states in his annual report "It would be well if some
system of nomenclature could be instituted, by means of which the record-
ing of deaths from *bonâ-fide* Malarial fevers could be differentiated from deaths
due to other diseases in which a high temperature is a prominent symptom.
'Fever'—i. e., an abnormally high body temperature—is a prominent symptom
of many diseased conditions which have nothing to do with Malaria and the
grouping of all, or mostly all deaths from febrile conditions under the heading
'Fever' (which is usually assumed to refer to Malarial fever only) is misleading
and incorrect."

52. The number of deaths returned as due to fevers was highest in Janu-
ary and lowest in June. They rose steadily from
Deaths by months. August to January and gradually fell from 24,015
in March to 15,773 in July.

53. In accordance with the Army Sanitary Commission's memorandum
on the Sanitary Commissioner's Report for 1901,
Malarial Fevers. paragraph 1, a brief account is given of the measures
carried on in dealing with "Malarial Fevers." The Deputy Sanitary Commis-
sioner, Southern Registration District, remarks "Malaria is especially ripe in
the forest areas of Kánara and Dhárwár. The Collector states the population in
these areas is gradually diminishing." Captain Hutchinson mentions Quinine is
at present issued at dispensaries and post offices and also by Circle Inspectors,
and now travelling dispensaries have been sanctioned for the most malarious
areas in Kánara. An attempt at the reduction of mosquitos in the forest areas has

considers impracticable. In Bijápur Town Captain Hooton, Civil Surgeon, organised mosquito brigades with good effect especially in the vicinity of the Jail.

Londa, Belgaum and other places were being dealt with in a similar manner. In Násik, Lieut.-Colonel Anderson, Deputy Sanitary Commissioner, obtained encouraging results from the destruction of the breeding ground of anophletes and as long as he could be present the work was energetically carried out.

It would be useful if the Sanitary Commissioner received copies of the reports made by Civil Surgeons in dealing with Malaria. None have been received.

RAINFALL.

54. *January*.—Rain fell in light to moderate showers between 6th and 8th in Khándesh, and on 6th in Sholápur and in parts of Násik, Ahmednagar, Poona, Sátára, Belgaum and Southern Marátha Country States.

February.—No rainfall except at Pálanpur.

March.—Rain fell on 12th in light to moderate showers, the fall at Lúnáwáda, being heavy (1·42").

April.—Month's rain in light to fair showers fell mostly between 25th and 28th in Sholápur, Sátára, the three Karnátak Districts and Kánara. There were heavy falls at Mundargi in Dhárwár District on 8th (1·20"), Talegaon-Dhamdhera in Poona District on 30th (2·70"), and at Gárgoti and Miraj (1·15"), in Kolhápur and other Southern Marátha Country States on 28th.

May.—Deccan.—Rain fell in light to fairly heavy showers between 20th and 26th.

Karnátak.—Light to moderate showers fell between 20th and 28th. There were also scattered showers during the first fortnight.

Konkan.—Rain fell in moderate to very heavy showers between 20th and 26th. There were also some showers in the first fortnight in Kánara.

Gujarát.—Some light showers fell between 22nd and 26th in Surat and Broach and on 26th in parts of other districts.

June.—The light rain during the first fortnight was due to a slight cyclonic storm which preceded the south-west monsoon. The monsoon current advancing in the wake of the storm gave heavy falls along the Western Coast as far north as Bombay between the 11th and 18th of the month. It was also fair in the Deccan, but hardly extended to Gujarát. The current, however, continued to be weak, though it gave moderate to heavy rain in the Konkan and showers more or less local in character in the Deccan. Subsequently it grew weaker and the rainfall lighter even in the Konkan.

Deccan.—Except at two stations in Khándesh, four in Nagar, one in Poona, three in Sholápur, and three in Sátára, the total fall of the month was much under average everywhere. It fell in light to fair showers between 9th and 19th and in the last week.

Karnátak.—Month's fall equal to or in slight excess of the average at five stations in Belgaum, seven in Bijápur, and six in Dhárwár; elsewhere below, especially in the Mallad. It fell in light to fair showers with intervening breaks from 4th to 19th and with scattered showers in the last week.

Konkan.—Month's fall 2 to 18 inches under average except at Vengurla and Devgad in Ratnágiri. It fell in light to fairly heavy showers from 11th to the end of the month. There were also scattered showers in Kánara in the first week.

Gujarát.—Month's fall very much under average everywhere. There was no rain at Mehmadabad and Mátar in Kaira, Kálol in Panch Maháls and Parántij in Ahmedabad. It fell in light to moderate showers in Surat from 14th to the end of the month with intervening breaks. Elsewhere in scattered showers on 15th and 16th. Fall quite insufficient.

July.—Deccan.—Month's rain either equal to or in excess of the average except at four stations in Khándesh, in the greater portion of Násik, one station in Nagar and two in Poona. It fell in light to fairly heavy showers almost daily. The fall was sufficient and well distributed.

Karnátak.—Rain during the month equal to or in excess of the average except at two stations in Bijápur and three in Dhárwár. It fell daily from 9th to the end of the month in Belgaum and western portion of Dhárwár. In Bijápur and eastern portion of Dhárwár, there were showers in the first week, between 14th and 18th and between 27th and 30th.

Konkan.—Total fall of the month exceeded the average in all the districts. Rain fell daily and was sufficient and well distributed.

Gujarát.—Aggregate fall of the month above the average. Rain fell in moderate to fairly heavy showers daily from 11th to the end of the month.

August.—Deccan.—Month's fall exceeded the average in almost the whole of the East Khándesh, Ahmednagar and Sholápur, eastern talukas of Poona and Sátára and at five stations each in West Khándesh and Násik; elsewhere below. Rain fell almost daily in tracts near the Sahyádris and mostly between 1st and 6th, 17th and 21st and 26th and 31st.

Karnátak.—Aggregate rain of the month above the average in the whole of Bijápur, at 2 stations in Belgaum and 5 stations in the eastern portion of Dhárwár; elsewhere below, especially in the Mallad. It fell in light to fair showers almost daily in the Mallad with a break from 10th to 16th; elsewhere it was confined mostly to 16th to 21st and 28th to 30th with scattered showers in the first fortnight.

Konkan.—Total fall generally in defect of the average except at a few coast stations. Rain fell in light to fairly heavy showers daily throughout the month.

Gujarát.—Month's fall under average except in Surat. Rain fell in light to fairly heavy showers mostly between 1st and 6th, on 11th and 12th and between 21st and 27th.

September.—Deccan.—Aggregate fall of the month generally below average. Rain fell almost daily in the tracts near the Sahyádris; elsewhere it was mostly confined to 1st to 4th and 15th to 19th. The fall was sufficient.

Karnátak.—Month's rain equal to or in excess of the average at five stations in Belgaum, the whole of Bijápur and four stations in Dhárwár; elsewhere in defect. It fell in light to fairly heavy showers almost daily from 10th to the end of the month. Fall generally sufficient.

Konkan.—Total fall of the month generally in defect of the average. Rain fell in light to fairly heavy showers almost daily. Fall sufficient and well distributed.

Gujarát.—Total fall of the month above the average in Surat, almost the whole of Broach and Panch Mahals; elsewhere below it. Rain fell in light to fairly heavy showers mostly between 1st and 15th and 19th and 27th. Fall sufficient.

October.—Deccan.—Month's rain generally in excess of the average except in East Khándesh, Poona and Sátára. Rain fell in light to fairly heavy showers mostly on the first 4 days with scattered showers between 13th and 19th in Sátára, Sholápur, Ahmednagar and east of Poona. Rainfall sufficient.

Karnátak.—Total fall of the month above the average in almost the whole of Bijápur, at 3 stations in Belgaum and 4 in Dhárwár; elsewhere below it. Rain fell in light to fairly heavy showers mostly between 1st and 6th, 16th and 19th and on 24th. Fall timely and sufficient.

Konkan.—Except in Kánara, month's fall exceeded the average. Rain fell in light to fairly heavy showers between 1st and 19th in Kánara, Ratnágiri and Kolába. In Thána it was confined mostly to first 6 days. Fall sufficient.

Gujarát.—Little or no rain fell in the month.

November.—Deccan.—Total fall of the month below average in Sholápur and generally above it in Sátára; none elsewhere. Rain in light to fair showers mostly fell on the first 4 days with scattered showers on 11th and 12th.

Karnatak.—Month's rain generally in excess of the average in Belgaum and Bijapur and in parts of Dhárwar; elsewhere in defect. It fell in light to fairly heavy showers, mostly on 3rd, between 9th and 12th, with additional showers on the last 3 days of the month.

Konkan.—Except in Kánara and in 2 stations in Ratnágiri, month's fall generally in defect of the average. Practically no rain in Thana. Rain in light to fair showers mostly fell on 5th, between 9th and 14th, with scattered showers on the last 3 days in Kánara, while in Ratnágiri and Kolába it was mostly from 3rd and 5th with additional scattered showers in Ratnágiri on 11th and 12th.

Gujarát.—No rain during the month.

December.—A few cents. of rain fell on the 1st at a few stations in the Deccan, in almost all stations in Karnatak and at a few stations in Kánara and Ratnágiri and in Southern Marátha Country States. No rain elsewhere.

PLAGUE.

55. During the year 1903, 281,269 deaths (141,559 males and 139,710 females) were recorded from plague being an increase of 96,517 compared with the previous year.

Deaths from Plague.

56. The number of deaths ascribed to plague in each year since 1896 is as follows:—

Year.	Number of deaths from plague.	Year.	Number of deaths from plague.
1896	2,086	1900	33,105
1897	46,914	1901	128,259
1898	86,191	1902	184,752
1899	96,596	1903	281,269
Total ...	231,817	Total ...	627,176
Mean ...	57,954	Mean ...	156,803

As will be seen from the table the disease was extremely fatal in 1903 destroying over a quarter of a million persons.

The mortality was the highest experienced since the commencement of the disease in 1896 and affected all districts more or less except Thar and Pákar and the Upper Sind Frontier.

57. Deaths by collectorates are shown in Annual Form No. IX A, from which it will be observed excessive mortality fell on the collectorates of Belgaum and Dhárwar. No less than 92,043 or 32·72 per cent. of the total plague mortality occurred in these ill-fated Zillahs. 222 or 78·44 per cent. Registration Circles were attacked. Excluding Sind the percentage was 98·75. The rates per mille of population for the different Registration Districts were as follows:—

Southern ...	32·85	Central ...	18·39
Western ...	11·50	Gujarát ...	11·16
and Sind ...	85.		

58. Annual Form No. IX A gives the monthly mortality. The disease which rose steadily last year from July continued severe through the first quarter of 1903, when the mortality fell from 32,188 in March to 17,571 in April. Through May and June the mortality showed marked decline and thence onwards steadily increased to October gradually falling in November and December. In both 1902 and 1903 the mortality from plague have been the highest on record. In both years there was the same remarkable fall in the deaths during May and June.

Notwithstanding the widespread and fatal character of this scourge only 18·27 per cent. of towns and villages were affected as against 10·38 per cent. last year.

59. In compliance with the orders contained in Government Resolution No. 1846-P., dated 8th October 1903, in the General Department (Plague), deaths from plague amongst persons inoculated with the anti-plague prophylactic are shown by Collectorates and months in the following table during the year 1903 :—

No.	Collectorates.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total number of deaths from Plague amongst the inoculated.	Total number of deaths from Plague during 1903.
1	Khândesh ... ..	...	...	...	...	...	...	...	...	83	...	2	...	33	16,163
2	Nâsik ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	9,789
3	Thâna ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2,062
4	City of Bombay ... ..	...	...	...	2	...	...	...	...	...	...	...	...	2	20,761
5	Kolâbe ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1,432
6	Ahmednagar ... ..	...	...	...	...	...	...	...	...	72	37	41	3	153	21,447
7	Poona ... ..	...	...	...	2	...	...	7	...	...	...	3	1	13	18,978
8	Sholâpur ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	25,238
9	Sâtâra ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	29,083
10	Batnâgiri ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	624
11	Belgaum ... ..	...	...	...	...	...	...	...	...	6	62	59	10	137	45,021
12	Dhârwar ... ..	...	...	...	...	...	...	14	31	183	427	494	276	1,435	47,022
13	Bijapur ... ..	...	...	...	...	...	...	...	...	...	...	...	396	886	15,633
14	Kânara ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	564
15	Surat ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	6,610
16	Brosch ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1,067
17	Kaira ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	16,937
18	Panoh Mahals ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1,712
19	Ahmedabad ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2,667
20	Karâchi ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2,189
21	Hyderabad ... ..	...	...	...	...	...	...	...	...	1	...	4	...	5	521
22	Thar and Pârkar ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	Sukkur ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2
24	Larkhâna ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	2
25	Upper Sind Frontier ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ... ..	...	...	...	4	...	...	21	31	206	526	603	676	2,166	231,249

To judge of the value of the plague prophylactic a return of *all persons inoculated and of these how many subsequently were attacked and died* of the disease is necessary. The return received from the Plague Department merely report the number of deaths amongst inoculated persons.

Effect of plague on the average annual death-rates. Annual Form No. VI, Appendix IV. 60. The effect of plague on the general annual death-rates by districts and towns will be seen on reference to Annual Form No. VI, Appendix IV.

The general rates were markedly affected by plague in the districts of Khândesh, Nâsik, Ahmednagar, Poona, Sholâpur, Sâtâra, Surat, Kaira and all the districts of the Southern Registration District except Kânara.

In the towns plague was the cause of over half the general mortality in Nasirabad, Yeola, Ahmednagar, Poona, Sholâpur, Sâtâra and Karâchi and in the remaining towns greatly raised the general death-rates.

DYSENTERY AND DIARRHOEA.

Deaths from Dysentery and Diarrhoea. 61. Dysentery and Diarrhoea caused the deaths of 29,586 males and 25,857 females, or a total of 55,443 persons as against 58,682 in 1902 and a decennial

Karnatak.—Month's rain generally in excess of the average in Belgaum and Bijapur and in parts of Dhárwar; elsewhere in defect. It fell in light to fairly heavy showers, mostly on 3rd, between 9th and 12th, with additional showers on the last 3 days of the month.

Konkan.—Except in Kánara and in 2 stations in Ratnágiri, month's fall generally in defect of the average. Practically no rain in Thána. Rain in light to fair showers mostly fell on 5th, between 9th and 14th, with scattered showers on the last 3 days in Kánara, while in Ratnágiri and Kolába it was mostly from 3rd and 5th with additional scattered showers in Ratnágiri on 11th and 12th.

Gujarát.—No rain during the month.

December.—A few cents. of rain fell on the 1st at a few stations in the Deccan, in almost all stations in Karnatak and at a few stations in Kánara and Ratnágiri and in Southern Marátha Country States. No rain elsewhere.

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Southern	... 32·85	Central	... 12·39
Western	... 11·50	Gujarát	... 11·16
and Sind	85.		

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4	City of Bombay	2	2	20,751
5	Kolâba	1,433
6	Ahmednagar	72	37	41	3	169	21,447
7	Poona	2	7	3	1	13	19,973
8	Sholâpur	25,238
9	Sâtâra	29,083
10	Râtnagiri	624
11	Belgaum	6	62	59	10	137	45,021
12	Dhârwar	14	31	183	427	404	276	1,435	47,022
13	Bijâpur	396	396	15,613
14	Kânara	564
15	Surat	6,810
16	Bronch	1,967
17	Kaira	10,937
18	Panch Mahâls	1,742
19	Ahmedabad	2,867
20	Karâchi	2,189
21	Hyderabad	1	...	4	...	5	521
22	Thar and Pârkar
23	Sukkur	2
24	Lârkhanâ	2
25	Upper Sind Frontier
	Total	4	21	31	295	526	603	678	2,156	251,299

To judge of the value of the plague prophylactic a return of *all persons inoculated and of these how many subsequently were attacked and died* of the disease is necessary. The return received from the Plague Department merely report the number of deaths amongst inoculated persons.

Effect of plague on the average annual death-rates. 60. The effect of plague on the general annual death-rates by districts and towns will be seen on reference to Annual Form No. VI, Appendix IV.

The general rates were markedly affected by plague in the districts of Khândesh, Nâsik, Ahmednagar, Poona, Sholâpur, Sâtâra, Surat, Kaira and all the districts of the Southern Registration District except Kânara.

In the towns plague was the cause of over half the general mortality in Nasirabad, Yeola, Ahmednagar, Poona, Sholâpur, Sâtâra and Karâchi and in the remaining towns greatly raised the general death-rates.

DYSENTERY AND DIARRHOEA.

Deaths from Dysentery and Diarrhoea. 61. Dysentery and Diarrhoea caused the deaths of 29,586 males and 25,857 females, or a total of 55,443

Deaths since 1892.
follows :—

62. The number of deaths recorded from Dysentery and Diarrhoea in each year since 1892 is as follows :—

Year.	Number of deaths from dysentery and diarrhoea.	Year.	Number of deaths from dysentery and diarrhoea.
1892	25,106	1898	56,787
1893	22,965	1899	71,736
1894	34,667	1900	218,243
1895	35,318	1901	50,115
1896	36,018	1902	58,582
1897	85,966	1903	55,113
Total ...	260,378	Total ...	524,011
Mean ..	48,398	Mean ...	87,335

63. Annual Form No 10 gives details of deaths from Dysentery and Diarrhoea by Registration Districts and Collectorates.

The deaths ascribed to Dysentery and Diarrhoea which were so numerous during the famine years, notably in 1900 when the mortality was 218,243, fell to 55,113 in 1903. The causes of the high annual mortality from Dysentery and Diarrhoea must be ascribed chiefly to impure water-supplies, poverty, privation, unwholesome food, dust, flies, and lack of skilful medical attendance. Traveling dispensaries would do much to lessen the high mortality from these diseases.

The Deputy Sanitary Commissioner, Gujarát Registration District, remarks : " Strict attention to the purity of the drinking water-supplies is the chief prophylactic to apply to the prevention of these diseases. As far as I have observed during the short period I have been in Gujarát, but little attention is paid to prevent contamination of drinking water-supplies, practically no attention being paid to the recommendations of the Sanitary Department on the subject."

The mortality was highest in the Western Registration District, 5.30 per mille, and lowest in Sind, .18. The Central returned a ratio of 4.35, the Southern 2.59 and Gujarát .65 per mille.

64. The deaths from Dysentery and Diarrhoea by months are recorded in Annual Form No. X, from which it will be seen the diseases were most prevalent in August, September and October. To estimate the value of season on these diseases the conditions of temperature and climate, dampness of subsoil, etc., require to be worked out for each town and locality.

INJURIES.

65. During 1903, 3,723 males and 2,970 females met with violent deaths against 4,107 males and 3,327 females last year. The mortality from these causes was the lowest since 1897.

66. The number of deaths registered under Injuries since 1892 is as follows :—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1892	5,432	1898	6,934
1893	6,144	1899	7,102
1894	6,117	1900	8,224
1895	6,051	1901	7,092
1896	6,238	1902	7,434
1897	6,907	1903	6,693
Total ...	36,889	Total ...	48,529
Mean ...	6,148	Mean ...	7.255

Deaths from Injuries for 1902 and 1903 by Sexes.

67. The deaths from these causes arranged by sexes are shown in the following table:—

			1902.			1903.		
			Male.	Female.	Total.	Male.	Female.	Total.
Drowning	...	...	1,388	1,351	3,242	1,352	1,658	3,040
Poisoning	...	...	82	46	128	97	35	132
Hanging	...	...	125	89	214	104	68	172
Wounding	...	...	616	212	858	518	305	823
Wild beasts	...	...	106	46	152	57	22	79
Snake bite	...	...	821	404	1,288	706	368	1,074
Railway	...	...	26	8	34	22	5	27
Other causes	...	...	940	578	1,518	867	479	1,346
Total			4,107	3,327	7,434	3,723	2,970	6,693

68. Ratnágiri is the most notoriously infected district of the Presidency. During the previous five years no less than 1,167 persons fell victims to poisonous snakes. In 1903 there were 177 deaths. Hyderabad (112) comes next to Ratnágiri in order of mortality, whilst in the remaining Collectorates excepting Khándesh (75) and Thána (74) the number of deaths from snake-bites was inconsiderable. No anti-venino inoculations were reported.

69. Of 3,040 deaths by drowning 246 were suicidal, 2,694 accidental and 100 were entered as "otherwise," the latter heading meaning that when the return was submitted no decision had been arrived at as to whether these deaths were "suicidal" or "accidental."

Of 516 suicidal deaths 246 were the result of drowning, 147 of hanging. 75 occurred from taking poison, 47 from self-inflicted wounds and one from suicide on a railway in the Upper Sind Frontier. The large number of accidental cases of drowning indicate the necessity for more care in erecting parapet walls to wells, which would also tend to keep their waters from pollution.

RESPIRATORY DISEASES.

70. Annual Form No. VI, column 9, gives the deaths from Respiratory Diseases in the districts and towns of the Presidency. The accuracy of the data collected under this heading must long remain below the truth, and probably only represent deaths from well marked cases of chronic bronchitis and phthisis and asthma.

71. As reported by districts the total deaths from respiratory diseases amounted to 2.52 per mille, whilst in towns it was 7.83. High mortality rates were reported from the towns of Ahmednagar (15.54), Bombay City (9.30), and the Gujarát towns of Surat (17.7), Broach (19.69), Jambusar (25.23), Kaira (20.27), Nadiád (12.22), Borsad (10.54), Kapadvanj (13.44), Ahmedabad (10.50). Hyderabad (Sind) had very high rate of 14.28 per mille. The returns from towns of Gujarát are unusually high and, if correct, would indicate a considerable amount of lung disease.

The higher respiratory disease rates in the Gujarát districts are possibly many of them cases of pneumonic plague, but owing to the absence of a full-time Deputy Sanitary Commissioner until the close of the year the subject has remained temporarily uninvestigated.

OTHER CAUSES.

72. The number of deaths recorded from "Other Causes" number 144,510 (71,953 males and 72,557 females) against 134,952 in 1902 and a decennial mean of 161,830, 17.87 of the total deaths were recorded under "Other Causes."

73. The percentage of deaths recorded under "Other Causes" to total deaths was highest in Kánara (39·97), Bombay City (34·52) and Ratnágiri (27·94) and lowest in Hyderabad (6·46), Thar and Párkar (1·79), Larkhána (3·30) and the Upper Sind Frontier (4·57).

Deaths from "Other Causes" since 1892. 74. The number of deaths registered from "Other Causes" in each year since 1892 was as follows :—

Year.	Number of deaths from Other Causes.	Year.	Number of deaths from Other Causes.
1892	87,196	1898	176,335
1893	89,142	1899	254,872
1894	100,558	1900	312,027
1895	97,104	1901	179,694
1896	100,112	1902	184,952
1897	143,503	1903	*144,510
Total	617,615	Total	1,232,390
Mean	102,936	Mean	205,395

* Do not include deaths from respiratory diseases.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

74a. This section has been omitted from this report and appears separately.

SECTION VIII.

SANITARY WORKS, MILITARY—No remarks.

SECTION IX.

SANITARY WORKS, CIVIL.

75. During the year ending 31st March 1903 there were 166 Municipalities in the Mofussil with a population of, according to the Census of 1901, 23,76,275 souls. The total net income of these Municipalities amounted to Rs. 59,84,404, of which sum Rs. 15,90,634 was expended on improving water-supply, drainage and conservancy within Municipal limits. The incidence of taxation per head of population rose from Rs. 1-8-10 to Rs. 1-14-5 and the incidence of income from Rs. 2-4-7 to Rs. 2-13-2. The ravages of plague have embarrassed the financial position of most Municipalities, and for want of funds many urgent schemes of water-supply and drainage have not been carried out.

76. There were 23 District Local Boards with 207 Taluka Local Boards ; the entire income of these Boards during the year ending 31st March 1903 amounted to Rs. 48,96,941, and out of this sum Rs. 2,35,775 was expended on water-supply and drainage.

77. The Bombay Village Sanitation Act, 1889, has been introduced into 265 villages against 294 up to the end of last year, this decrease being due to the abolition of 37 non-working committees in the Poona Collectorate as per Government Resolution, General Department, No. 6107 of 23rd November 1903.

78. The number of selected villages in which "The Village Sanitary Inspection Book" has been introduced stands at 3,598 ; of which 1,818 or 51 per cent. have been written up by officers of the Sanitary Department.

79. In accordance with paragraph 2 of letter No. 1237, dated 8th August 1903, from the Government of India, Home Department (Sanitary), embodied in the preamble of the Government Resolution in the General Department, No. 4573, dated 1st September 1903, a return showing the effect of large and important works connected with drainage and water-supply is appended in Appendix III, which was discontinued for the last two years.

Introduction to Appendix
III, Statement.

The death-rates in all the towns enumerated have been greatly affected by plague, since the introduction of either water supplies, or drainage or both. To elucidate the effect of these sanitary measures, detailed inquiry and report is required for each town, especially with reference to fever and plague mortality.

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

80. On 30th March, Lieut.-Colonel J. W. Clarkson retired from the service and I took over charge of the Sanitary Commissionership on the same date. I continued in charge performing the combined duties of Deputy Sanitary Commissioner, Central Registration District, and Sanitary Commissioner until the 13th June when I proceeded on six months' leave on urgent private affairs. Lieutenant-Colonel Anderson acted as Sanitary Commissioner in addition to his own duties as Deputy Sanitary Commissioner until my return from leave on the 12th December. Thus the Sanitary Commissionership was held for most of the year by officers performing dual duties which left little time for inspection work. In fact from 19th June to 2nd July, Lieutenant-Colonel Anderson was performing triple duties.

81. During June and July Lieutenant-Colonel Anderson visited Bombay in connection with the selection of a site for the Vaccine Depot, and in August he visited Belgaum for the purpose of investigating the results of vaccination with Lanoline Vaccine. On the 4th December he proceeded to Ahmedabad to investigate into the high infantile mortality in that city. On return from furlough at the close of the year I proceeded to Belgaum and the Southern Marátha Country to consult with the Deputy Sanitary Commissioner regarding the introduction of preserved lymph into the Southern Registration District and its extension throughout the Presidency.

82. The widespread and destructive epidemic of plague in 1903 crippled many of the Municipalities, and one cannot but have the deepest sympathy with the people of those towns which suffered so terribly from the pestilence. It was the most destructive plague year since 1896. Nevertheless, it is gratifying to note that the closing balance of the Municipality in the Presidency was Rs. 14,76,595, and that the amount spent on public health and convenience was Rs. 27,36,605 or 40·74 per cent. of income and showed an increase of Rs. 3,15,333 over last year.

83. The extension of towns and villages over a larger area than at present is imperative. The extreme density of the population on the inhabited area and the insanitary conditions engendered thereby are patent causes of disease. It is no wonder, then, that the malignant plague bacillus has found the undefended and overcrowded population such an easy prey. The lesson to be learnt is obvious—the people must spread into suburbs and live more in the country and sooner or later land must be taken up for this purpose. Already in many towns the people are beginning to see the value of living in suburbs, as *e.g.* in Bombay, Belgaum, Poona, etc.

84. The registration of vital and mortal statistics still remains defective in Sind, and many of the towns of the Presidency proper Municipalities are timid in the enforcements of by-laws. The vaccinators who are employed to check the birth and death registers and report omissions to their Deputy Sanitary Commissioner, for fear of offending and bringing to punishment the police patels who are the registrars, perform this duty in a very perfunctory manner. As the registrar is also the official upon whom the vaccinator depends for his success in vaccination work, it is obviously his interest to keep in with that official. Hence omissions in the birth and death registers are not to any extent reported by vaccinators.

Registration might be improved in dispensary towns if the work could be handed over to the Medical Officer who should also be made Medical Officer of health of town and grant medical certificates of the cause of death.

85. The high rates of "still-born" in the Bombay City, Ahmedabad and Kanara have from time to time attracted attention. No definition of "still-born" has ever been given as a guide to Registrars so far as I am aware. In Italy, Germany and the four Scandinavian countries the term "still-born" is used in the medico-legal sense, *i.e.*, a viable infant (having had over six months of intra-uterine life, being 25 centimetres long) which is dead without having

reathed. In this country the report of "still-born" is received generally second hand by Registrars and in consequence the information is often inaccurate.

86. The inoculation of children with Cow Pox from arm to arm is not always a very simple operation, especially with refractory children. When, as we now, blood is not infrequently mixed with the vaccine the necessity for maintaining a strict supervision over operation by Inspectors and Deputy Sanitary Commissioner must be conceded. It is hardly justifiable to perform the vaccination work without. In the Bombay Presidency and Sind there are but five Deputy Sanitary Commissioners to supervise the work amongst 25,424,235 persons covering an area of 188,745 square miles. Frequent changes in this staff must act detrimentally on the supervision of the work. A reference to Annual Form No. VIII shows the necessity for continued effort in dealing with that highly infectious disease, small-pox, and any relaxation of supervision entails lax work on the part of vaccinators and an eventual increase of the disease.

87. "Sanitary Inspection Books" have been introduced into a large number of towns and villages, and the results are being watched with interest. Deputy Sanitary Commissioners have been requested to give as much time to them as possible. In Broach they have been introduced throughout the district. It appears to me these Inspection Books which take much time and care to write up, involving also a careful inspection of the locality, should be only introduced at first into the larger and more important towns and villages.

88. The Deputy Sanitary Commissioners have carried out their arduous and often difficult duties exceedingly well. Captain Hutchinson, Acting Deputy Sanitary Commissioner, Southern Registration District, has shown great ability in pushing forward vaccination in the Southern Marátha Country with preserved triumph. Major Arnim took charge of the Gujarát Rural Circle in December on return from furlough. Lieut.-Colonel Anderson cheerfully carried out his dual duties as Sanitary Commissioner and Deputy Sanitary Commissioner, Western Registration District, with zeal and ability.

The changes in the supervising officers were very numerous and interfered greatly with the systematic talukwári visitation of districts. Amongst the five Deputy Sanitary Commissioners the changes implied an average of three officers for each appointment.

89. My clerical establishment have carried out their duties well. My assistant Mr. Keess has given me entire satisfaction, and I beg to bring his long and faithful services to the notice of Government.

O. H. CHANNER,
Sanitary Commissioner.

Poona, 4th May 1904.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD, BOMBAY PRESIDENCY, FOR 1903.

1. *Preliminary.*—Revised rules for the guidance of the Sanitary Board, the Sanitary Commissioner and the Sanitary Engineer were published in Government Resolution, General Department, No. 4568, dated the 1st September 1903. The only important question referred for the opinion of the Board was that of the Sanitary regulations to be adopted for the new suburbs of Bombay in the island of Salsette. The Board met once only during the year when a number of minor questions were discussed and a recommendation was made that two Surveyors should be appointed to work under the Sanitary Engineer for the purpose of preparing small projects for Municipalities. With the exception of Ahmedabad and Karáchi none of the Municipalities were in a position to undertake costly works, their available funds being required for minor works which had been postponed owing to the expenditure and loss of revenue due to plague and famine.

2. *Ahmedabad Drainage.*—The extension of the drainage, designed by Mr. Baldwin Latham and estimated to cost about eleven lacs of rupees, made good progress during the year under a Special Engineer working under the orders of the Superintending Engineer, Northern Division. The Sanitary Engineer inspected the works in February and again in September and advised regarding the site for the proposed sewage farm.

3. *Extension of the Karáchi Drainage.*—The Municipality having applied for permission to raise a loan for this work which is estimated to cost about 11½ lacs of rupees, the Sanitary Engineer visited Karáchi in October and submitted a report upon the scheme.

4. *Suburbs of Bombay in Salsette.*—The work of locating the proposed roads, open spaces and building sites, &c., is being carried out under the orders of the Collector, and the Sanitary Engineer visited the locality three times during the year.

5. *Manjri Experimental Sewage Farm.*—A report by the Deputy Director of Agriculture on the working of the farm was published in May 1903 and in Government Resolution, General Department, No. 5319, dated the 9th October 1903, Government sanctioned the division of the septic tank into two compartments in order to enable experiments to be carried out with stronger sewage. The reports of the Agricultural Chemist to the Government of India and of the Sanitary Engineer are published as accompaniments to that Government Resolution.

6. *Surat Water-supply.*—Owing to the low state of the river and high tides the water in the collecting wells had become brackish during the previous hot weather and the Municipality acting upon the advice of the Superintending Engineer, Northern Division, sank three additional wells, only eight feet deep, the water is now quite free from salt.

7. *Lectures at the College of Science.*—The Deputy Sanitary Commissioner and the Sanitary Engineer delivered short courses of lectures on Sanitary Engineering at the Poona College of Science and the Sanitary Engineer conducted the students over the works in progress at Manjri and at the Sassoon Hospital.

8. *Miscellaneous.*—In addition to the recommendations made during his tours of inspection the Sanitary Engineer gave his advice in the following cases :—

- (1) Tattar Water-supply.
- (2) Site for Police Lines, Poona.
- (3) Site for Jail, Násik.
- (4) Sholapur Drainage Scheme.
- (5) Malabar Hill Drainage Scheme.
- (6) Poona Water-supply.
- (7) Sukkur Water-supply.
- (8) Sanitary Improvements at the Sassoon Hospital.
- (9) Bhiwandi Water-supply.
- (10) Water-supply for the Karáchi Jail.
- (11) Improvements to the Ahmedabad Water-supply.

D. W. HERBERT, A.M.I.C.E.,
Secretary to the Sanitary Board, Bombay Presidency.

APPENDIX II.

No. 769 of 1904.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF BOMBAY
FOR THE YEAR ENDING 31st DECEMBER 1903.

I.—SUMMARY.

A tabular statement giving a summary of the shipping of the Bombay Port and the sanitary work in connection therewith for the year ending 31st December 1903 is appended to this report. During the year 14,597 vessels of all sorts, with 719,322 crew and passengers, were examined against 15,432 vessels, with 701,964 crew and passengers during the year preceeding. The clothing and bedding of 96,188 crew and passengers of outgoing and incoming vessels were disinfected. Of this latter number 84,287 were Native crew and third class or deck passengers and pilgrims who left the Port of Bombay for ports out of India, and 11,901 were crew, troops, pilgrims and passengers who arrived by vessels on which cases of infectious diseases occurred or by ships from ports against which the inspection at Bombay was compulsory. Of the 11,901 persons as shown above 2,712 were crew and British troops who arrived by transports, 729 were crew and passengers from East African ports among whom cases of jigger were detected, 6,466 were pilgrims who returned from Mecca *via* Aden and other routes and whose clothing and bedding had to be disinfected in accordance with the orders of the Government of India, and the remaining 1,994 were crew and passengers of other inward vessels among whom cases of infectious diseases were detected. Fifty-five vessels on which cases of infectious diseases occurred were disinfected. Four hundred and fifty-eight persons among whom cases of small-pox occurred were vaccinated. At the outward and inward inspections and on board vessels lying in the harbour and docks, 77 cases of plague, two cases of cholera, 238 cases of small-pox, 19 cases of measles, 81 cases of chicken-pox, seven cases of jigger and one case of scarlatina were detected.

II.—INCOMING VESSELS.

2. In accordance with the rules in force incoming vessels which were actually infected or suspected to be infected with plague, cholera, small-pox, measles, or other infectious diseases were inspected and disinfected on arrival at Bombay. In the case of all vessels arriving from East African ports medical inspection of their crew and passengers for the detection of jigger and sleeping sickness was carried out. One hundred and two vessels of all sorts with 7,912 crew and 14,360 passengers were inspected on arrival. Of the 102 vessels 23 entered the harbour with cases of infectious diseases on board. Five of the 23 infected vessels were hired transports which arrived from Southampton, Malta, Suez and Aden with a crew of 878 persons and 1,834 troops. One of the transports had two cases of plague, the second had three cases of small-pox, the third had two cases of chicken-pox, the fourth and fifth had seven cases of measles among the crew and troops. The plague-infected transport was the "Sátáia" which arrived in February. One of the saloon crew died of plague during the voyage. Another man was found on arrival to be suffering from fever. He was sent to the Modikhana Hospital where he developed plague. The vessel was infested with rats. On 25th February two dead rats were seen and five on the 27th under the stores on the main deck. The disinfection of the transports and of the clothing and bedding belonging to the crews and troops were carried out under the supervision of the Port Health Officer. Four vessels arrived with seven cases of jigger on board. The cases were removed to the Goculdas Tejpal Hospital for treatment. The jigger-infested vessels as well as the clothing and bedding of their crew and passengers who numbered 729 were disinfected. One of the vessels was reported to have had eight deaths from plague during the voyage, and on arrival another case was sent to the Modikhana Plague Hospital for treatment. Four vessels which were reported to have landed at Karachi 74 cases of jigger and to have undergone the necessary disinfection there were not treated as infected arrivals at Bombay although they were subject to medical examination on arrival. Thirteen vessels with 6,466 pilgrims arrived from Jeddah, four of which had seven cases of small-pox. The vessels were thoroughly disinfected. It was compulsory to disinfect the clothing and bedding of the returning pilgrims before they were made over to the Protector of Pilgrims for despatch to their homes in India and beyond the Indian frontier. The remaining 10 vessels with a total crew and passengers of 1,994 persons had on board five cases of plague, two cases of cholera, two cases of small-pox, one case of measles and 16 cases of chicken-pox. The vessels and the kit of the persons among whom the cases occurred were disinfected.

3. The ship which had 9 cases of plague on board was the S. S. "Khalif" which arrived in the Bombay harbour on the morning of 14th March from Zanzibar *via* Marmagaoa. Her crew (85 in number) and passengers (2 cabin and 1 deck) were examined for jigger but no cases of jigger were found among them. The Commander of the vessel reported that 8 persons (including the 3rd Officer and a deck passenger) had died on board the vessel during the voyage, and had been buried at sea, and also that one of the crew was ill on board. This man (a coal-trimmer) had been ill for 14 days. On examination in the forehold where he was isolated he was found to be suffering from fever and a bubo in the left femoral region. He was removed to the Modikhana Plague Hospital where he was diagnosed to be suffering from plague. From the history of the 8 persons who suffered from fever and enlargement of glands and who

died during the voyage there is not the least doubt that they all died of plague. The first patient (3rd Officer) was attacked on the 27th February and died on the 4th March. He used to give out stores daily from the store-room to the Native crew. These 8 deaths all occurred between the 4th and 11th March. On 20th February about 50 dead rats in all were found in the store-room and forehold by the Officers of the ship. The ship on arrival in Bombay on 14th March had the decks, fore-castle and latrines thoroughly disinfected with a solution of carbolic acid. The store-room and holds were fumigated by burning sulphur in them at the rate of 6 lbs. per 1,000 cubic feet of space. At the Captain's wish the provisions in the store-room to which the rats had access were destroyed. As the plague on the S. S. "Khalif" appeared to be due to infected rats or cargo a short report on the case was submitted to Government with this Office letter No. 964 of 2nd April 1903.

4. The vessels which arrived from East African ports were inspected with a view to detect cases of sleeping sickness as per Government Resolution No. 2969 of 28th May 1902. Up to the present no case of that disease has been discovered here.

III.—OUTGOING VESSELS.

5. The medical examination of the crew and passengers of all vessels and the disinfection of the clothing and bedding of the Asiatic and African members of the crew, who were not officers, engineers, doctors, or Japanese, and of the deck, 3rd and 4th class passengers, and Asiatic and African servants bound for ports out of India were carried out immediately before they left the Port of Bombay as laid down in the Medical Inspection Rules published under Government Notification No. 3892-P., dated the 14th June 1899, and Rule I issued under Government Notification No. 2671-P., dated the 2nd October 1902. The inspection of the crew and passengers was done by day, on shore, in sheds specially arranged for that purpose. The disinfection was carried out at the disinfection station on the Frere Road, near the Prince's Dock, or by means of the stove on the floating disinfection barge.

6. During the year under report 14,463 outward bound vessels with 237,995 crew and 459,055 passengers were inspected. Thirty-nine cases of plague, 217 cases of small-pox, eight cases of measles, and 63 cases of chicken-pox were detected.

7. Of the 14,463 outgoing vessels 461 vessels with a crew of 43,974 persons and 40,624 passengers left for Aden, or ports in the Red Sea and Europe; 320 vessels with 28,664 crew and 26,456 passengers for ports out of India; and the remaining 13,682 vessels with 165,357 crew and 391,945 passengers for Indian Ports including Burma.

8. The clothing, bedding and boxes and other suspected articles of 45,708 Asiatic and African members of the crew and of 34,121 3rd and 4th class and deck passengers and pilgrims who sailed on steamers bound for ports out of India were disinfected. In addition to this disinfection, the kits of 3,950 crew and 508 passengers who sailed in Native craft for ports out of India were also disinfected. Thus the total number of outward bound crew and passengers whose clothing, bedding, etc., were disinfected comes to 84,287 during the year under report against 79,336 during the year preceding.

9. The disinfection of the clothing and bedding of the crew and passengers of vessels which proceeded to ports out of India *via* Karachi was not carried out at Bombay, *vide* Government Resolution, General Department (Plague), No. 1210-P., dated the 7th April 1902, as the agents preferred to have the disinfection done at Karachi.

10. An apparatus for the disinfection by means of formaldehyde gas of boots and shoes of crew and passengers of vessels was supplied by the Director-in-Chief, Plague Research Laboratory. The apparatus is capable of taking 72 pairs of country shoes at one charge and requires 25 minutes for "ordinary" disinfection and 90 minutes for "absolute" disinfection. It takes close on 3 hours for the "ordinary" disinfection and 9 hours for the "absolute" disinfection of 350 pairs of boots and shoes of the Native crew of a large ship. As it is difficult to give this much time to the disinfection of boots from one ship the purchase of another boot and shoe disinfector of an improved pattern and of at least double the capacity of the present one has been suggested to Government.

11. It was found by Professor Haffkine that plague microbes ceased to grow in an appropriate artificial medium after having been subjected for 25 minutes to formaldehyde gas derived from 5 paraform tabloids, but that they had still vitality left to enable them to recover their primitive vigour when injected into the body of a rat. In order to efficiently devitalize the plague bacillus and render it incapable of growing in the body of a very susceptible animal, it was found necessary to increase the paraform tabloids to 60 and the time of exposure to one and a half hours.

12. In the following instances the crew and passengers of vessels which called at this port merely to land or embark passengers were exempt from inspection and disinfection in accordance with the proviso to Rule I of the Medical Inspection Rules. Such of the crew and passengers as embarked at Bombay on the vessels were inspected by day on shore; the new Native crew and 3rd and 4th class and deck passengers had their effects disinfected:—

(a) In March the Messageries Maritimes S. S. "Tonkin" called at Bombay on her voyage to China and Japan *via* Colombo and embarked 40 saloon passengers.

(b) In May the S. S. "Tonkin" on her return voyage from China to Egypt and Marseilles called at Bombay and embarked 117 saloon passengers.

(c) In June the S. S. "Sunda," which was in this port for a short time on her voyage to Calcutta *via* Colombo, disembarked some military details. She was allowed to take a supply of water while under quarantine. She did not embark any crew or passengers at Bombay.

(d) In August the S. S. "Bulysses" called here on her voyage to Colombo to take coals. The vessel did not take any crew or passengers from Bombay.

(e) In October the S. S. "Floristan" called at Bombay on her voyage from London to the Persian Gulf *via* Berbera to obtain the Persian Gulf charts. The vessel did not embark any crew or passengers at Bombay.

13. The Agents, Commanders and Nacodas of all outgoing vessels, including Native sailing craft, with the exception of a very few, were careful in paying attention to the sanitary state of their ships, and in almost all cases they have cheerfully carried out the instructions and advice of the Port Health Officer. The forecastles were limewashed, painted or disinfected before departure. The bilges of Native sailing craft were generally clean at the time of inspection. Those that were found to be dirty or to contain foul water had to postpone their departures until they were thoroughly cleaned.

14. The S. S. "Itola," S. S. "Chusan," Transports "Syria" and "Satara," S. S. "Dwarka," S. S. "Khalif," S. S. "Croxdale," S. S. "Indra," S. S. "Parramatta," S. S. "Aleppo," S. S. "Ramsay," S. S. "Abergeldie," S. S. "Indrawati," S. S. "Muristan," S. S. "Haidari," S. S. "Mahommadi," and R. I. M. S. "Clive," had cases of infectious disease among their crew and passengers within 10 days prior to their departure from this port. The Bills of Health granted to these vessels mentioned the illness which occurred on board and the measures which had been taken before departure for the prevention of the spread of the disease.

15. Six vessels were allowed to convey to Europe and the Persian Gulf coffins containing the remains of certain persons who were certified to have died of non-infectious disease. The persons interested had the permission of the Governments of their country to convey the corpses.

16. An enquiry was addressed to the Bombay Shipping Agents as to whether any of their steamers which were in possession of the Bombay Bill of Health met with any vexatious delay owing to quarantine regulations at foreign ports. All the Agents, with the exception of the Agent, Austrian Lloyd's Steam Navigation Company, the Agent, German East Africa Line, and the Agent, Bombay and Persia Steam Navigation Company, Limited, report that none of their steamers were delayed at other ports.

The Agent, Austrian Lloyd's Steam Navigation Company, reports that the S. S. "Maria Valerie," which sailed from Bombay on 29th February, was put in quarantine at Colombo owing to a suspected case of plague on board.

The Agent, German East Africa Line, states that the ill-fated S. S. "Khalif," which had several cases of plague on board on her inward voyage to Bombay from East Africa, was put under quarantine at all ports of call on her return voyage to Europe *via* the Cape.

The reply of the Agent of the Bombay and Persia Steam Navigation Company to the enquiry referred to was forwarded to Government for information with this office letter No. 654 of 14th March 1904.

IV.—INFECTIOUS DISEASES ON VESSELS IN THE HARBOUR AND DOCKS.

17. During the year under report 32 vessels, including Native sailing craft which were lying at different berths in the Victoria and Prince's Docks and at the various bunders in the harbour, had on board 20 cases of plague, of whom 19 died, 9 cases of small-pox, and 3 cases of measles. In addition to these cases 2 persons (dock labourers) were found dead at certain wharfs in the Prince's and Victoria Docks. The cause of death in these cases was attributed to plague. All these vessels and those mentioned in para. 2 of this report, as well as the places where the coolies were found dead, were thoroughly disinfected in accordance with the Regulations issued under the Venice Sanitary Convention and the Indian Ports Act. A statement (No. 2) giving details of the cases above referred to is appended to this report.

V.—PORT OBSERVATION CAMP.

18. The area of land which was occupied by the camp was reduced on 1st June 1903 from 12,555 square feet to 10,354 square feet, the monthly rent for which amounts to Rs. 75-15-8. This camp received some of the persons who were rejected and sent there from the outward and inward inspections. They were kept under observation until their temperature fell to normal or until it was certain that the symptoms from which they suffered were not due to plague. Among the passengers and crew who were sent to the camp from the outward inspections, 39 developed plague and were transferred to the Modikhana Hospital for treatment. The sheds of the camp in which the plague cases developed were thoroughly disinfected with perchloride of mercury and were kept unoccupied for some days. One hospital assistant and one ayah were employed to look after the inmates of the camp. The sweeping of the camp was done

under arrangements made with the Public Health Department of the Bombay Municipality. The limewashing of the sheds, floors, etc., and the general repairs to the camp were carried out by the Executive Engineer, Bombay Presidency. One of the Senior Medical Officers was detailed in turn every fortnight to supervise the general working of the camp.

19. One of the sweepers in the Port Health Camp was sent to the Modikhana Hospital suffering from plague. He died in the hospital two days after admission.

VI.—DISINFECTION OF SHIPS AND INFECTED CARGO.

20. The total number of infected vessels of all sorts disinfected under the personal supervision of the Port Health Officer or of his staff was 55 during the year. In certain cases the disinfection barge was placed at the disposal of the Royal Navy and Royal Indian Marine Authorities for carrying out the disinfection of linen, mattresses and the clothing and bedding of the crew belonging to infected Naval and Indian Marine ships or transports on board of which were diseases which, although infectious, did not come under the infectious diseases mentioned in notification issued under the Indian Ports Act.

21. The vessel on which a case of cholera occurred had the drinking water on board discharged into the sea. The water tanks were thoroughly disinfected inside with potassium permanganate solution before they were refilled with a fresh supply of drinking water.

VII.—GENERAL HEALTH OF THE SHIPPING.

22. During the year 867 persons connected with the shipping were admitted into the various hospitals in the city. The St. George's Hospital admitted 439 European patients, of whom 19 died, 404 discharged cured, and 19 remained after 1st January 1904 under treatment. The Jansetjee Jeejeebhoy Hospital admitted 142 Native patients, of whom 19 died, and the Goculdas Tejpal Hospital 286 Natives, of whom 25 died.

23. No deaths occurred from the effects of cleaning bilges of ships during the year. There were 235 accidents and 28 deaths due to accidents on board of ships which were lying in the harbour and docks. It appears that there is no Employers' Liability Act in India.

VIII.—RED SEA PILGRIM TRAFFIC.

A.—Outward Pilgrim Traffic.

24. In the last year's report the number of pilgrims who sailed between the date, *viz.*, 1st December 1902, on which the camps at Pir Pao were opened, and the date, *viz.*, 31st December 1902, on which the year ended, was mentioned. The ships which sailed with pilgrims for Jeddah between 1st of January 1903 and 6th February 1903—the date on which the camps were closed—were as follows:—

S. S. "Simla,"	left with 391 pilgrims on 16th January 1903.
" "Hooseinee"	" 408 " 20th "
" "Haidari"	" 501 " 22nd "
" "Kilwa"	" 364 " 29th "
" "Gulf of Trinidad"	" 552 " 4th February 1903.
" "Shahnoor"	" 405 " 6th "
<hr/>	
2,621	

25. As a special report of the pilgrim traffic for the period extending from 17th October 1903 to 30th January 1904 has been forwarded to Government, it is considered not necessary to repeat in this report all the matters therein dealt with.

26. During that period—17th October 1903 to 30th January 1904—16,401 pilgrims were segregated for 10 days in the camps specially erected for that purpose at Pir Pao, in accordance with Government Notification No. 5282, dated the 7th October 1903. This number does not include Her Highness the Begum of Bhopal and party comprising 305 persons who left in the S. S. "Akbar" on 30th October as they were not segregated in Bombay. They had been segregated at Bhopal.

27. During segregation 17 pilgrims died in the camp hospitals. The death-rate among so large a number of pilgrims while undergoing segregation is very low, more especially when it is taken into account that many of them were old and feeble.

28. Between 17th October 1903, the date on which the camps were opened, and 31st December 1903, the date for which this report is prepared, 13 vessels left for Jeddah with 8,300 pilgrims and between 1st January to 30th January 1904 11 vessels left for Jeddah with 8,347 pilgrims. The number of vessels and the number of pilgrims which they conveyed to Jeddah during the pilgrim season of 1903-1904 is 24 and 16,647, respectively.

29. During the pilgrim season many Mahomedans left for Aden as "shop-keepers" and for Suez as "travellers" and "merchants." The most of these people were undoubtedly pilgrims and the Venice Convention lays down that pilgrims shall be segregated before being allowed to leave an infected country. Ship-owners complained that they were not able to get many saloon pilgrims for their ships, as many of the Mahomedans who left for Aden and Suez

were well-to-do passengers and would, if they had undergone segregation, go as saloon passenger by the pilgrim ships.

30. During the pilgrim season and while Mahomedan passengers were leaving by ordinary ships for Aden and Suez, the agents of a certain ship stated that they intended to take from Bombay without segregation 300 Mahomedan passengers for Suez, as that port does not come under the Pilgrim Ships Act, *vide* Notification (2), Section 5 of the Act. However the idea was not carried out.

B.—Inward Pilgrim Traffic.

31. A table (No. 3) is attached to this report showing the number of vessels which brought to Bombay 6,463 pilgrims from Mecca *via* Aden and other routes.

32. Four pilgrim ships arrived in Bombay with 7 cases of small-pox.

33. The disinfection of the baggage of 6,166 returning pilgrims was done at the Disinfection Shed near the Prince's Dock. Pilgrims whose homes were up-country or beyond the frontier were not allowed to enter the town. They were made over to the Protector of Pilgrims for despatch direct from the Disinfection Shed to their homes by rail.

IX.—EMIGRATION TRAFFIC.

34. Owing to the prevalence of plague in the City of Bombay the emigration traffic has been suspended at this Port since the year 1897.

X.—SANITARY STATE OF THE HARBOUR AND FORESHORE.

35. The sanitary state of the harbour and of the various bandars, basins and docks has been fairly satisfactory.

XI.—CHOLERA, SMALL-POX, AND PLAGUE IN THE CITY OF BOMBAY.

36. During the year 17 deaths from cholera, 1,177 deaths from small-pox and 20,788 deaths from plague occurred in the City of Bombay against 75 deaths from cholera, 288 deaths from small-pox and 13,820 deaths from plague during the year preceding. The city was free from cholera in an epidemic form during the year. There was a heavy mortality from small-pox in February, March, April and May. Plague raged as a virulent epidemic from January to May inclusive.

37. Whenever plague developed among the crew or passengers who were not allowed to sail on a vessel for ports out of India, Government were informed of the fact in order that the authorities at the vessel's next port of call may be made acquainted of the occurrence by wire. When a plague case occurred among those who were prevented from sailing on vessels bound for Indian ports the Port Health Officer communicated the fact to the authorities at the next port at which the vessel was intended to touch.

38. There is a Clayton's apparatus in this port for the disinfection of ships' holds and for the destruction of rats and cockroaches on board vessels by means of sulphur dioxide. The apparatus belongs to one of the shipping firms in Bombay and is used by them in the disinfection of their steamers when necessary.

XII.—ESTABLISHMENT.

39. During the year the following extra Staff was engaged to carry out the work of the Port Health Department:—

<p>(a) Staff for Medical Duties—</p> <ul style="list-style-type: none"> 1 Commissioned Medical Officer. 3 English Doctors. 1 Lady Doctor. 1 Lady Nurse. 2 Assistant Surgeons. 4 Hospital Assistants. 	<p>(b) For the Observation Camp—</p> <ul style="list-style-type: none"> 1 Hospital Assistant. 1 Ayah.
<p>(c) For Disinfection Work—</p> <ul style="list-style-type: none"> 1 Engine Driver. 1 Fireman. 2 Coolies. 	<p>(d) Office—</p> <ul style="list-style-type: none"> 3 Temporary Clerks, 1 Naik. 1 Temporary Peon.
<p>(e) Launch—</p> <ul style="list-style-type: none"> 1 Tindal. 2 Lascars. 1 Engine Driver. 1 Stoker. 	<p>(f) Police—</p> <ul style="list-style-type: none"> 1 Inspector. 6 Sub-Inspectors. 40 Native Sepoys.

40. Owing to the diminution of work during the monsoon months the Medical Staff and Police Force were reduced.

41. Credit is due to all the Medical Officers and Subordinates of the Port Health Department for successfully carrying out their respective duties which were of a very responsible

nature. A large amount of disinfection and inspection work in connection with the heavy pilgrim traffic of this year fell upon the Medical Staff.

42. The Police Staff under the supervision of Inspector G. R. Mayers worked hard and well.

43. The members of the Office Staff under Mr. Ramrao G. Kamalakar were fully occupied throughout the year in the transaction of heavy work, which was further increased by the additional clerical duties in connection with the pilgrim traffic. The undersigned was satisfied with the manner in which those duties were performed.

44. The Port Health Officer and his Staff are indebted to the Superintendent, Preventive Service, for placing at their disposal one of the Customs launches when necessary.

45. The thanks of the Port Health Officer are due to the Dock and Harbour Police for their assistance and co-operation, and to the various shipping agents who rendered every facility to the Medical Staff in carrying out the inspection and disinfection of the crew and passengers without causing the latter unnecessary inconvenience.

46. The undersigned regrets to report the death from plague of one of the engine-drivers in February. The deceased was employed on the Port Health Launch.

J. CRIMMIN, V.C., Lieut.-Colonel, I.M.S..
Health Officer of the Port.

*Bombay Port Health Office,
Town Customs House, dated 31st March 1904.*

TABLE No. 1.

The following tabular statement gives a summary of the Shipping of the Bombay Port and the work in connection therewith for the year ending 31st December 1903 :—

Vessels, including Country Craft.	Total Number of Vessels.	Number of Vessels inspected.	Number of Persons inspected, including crew on Vessels.	Number of Native crew and 3rd class or deck passengers disinfected during the year.	Number of vessels disinfected.	Number of Persons vaccinated.	Diseases and Number of Cases of each.							
							Plague.	Cholera.	Small-pox.	Measles.	Chicken-pox.	Jigger.	Leprosy.	Scarlatina.
Entered	*84,851	103	22,272	11,901	28	453	16	2	12	8	15	7	...	...
Left... ..	*84,369	14,463	697,080	84,267	...		80	...	217	6	68	...	...	...
In harbour during the year ...	*1,172	32	.....	... ..	32		23	...	0	3	...	...	...	1
Total for 1903 ...	69,692	14,507	719,322	96,188	55	458	77	2	238	19	81	7	..	1
Total for 1902 ...	69,791	15,433	701,964	93,479	61	252	44	2	11	106	67	30	...	1

* These figures are supplied by the Customs Department and the Port Officer, Bombay.

TABLE No. 2.

The following table includes all Steamers, Square-rigged Vessels and Native Craft which became infected while lying in the Port of Bombay during the year 1903 :—

Months.	Number of Persons who were attacked with Plague at Bandra and in the Docks.		. Total number of cases of infectious diseases in the Bombay Harbour.														
			Total Number of infected Vessels.	Cholera.		Small-pox.		Measles.		Chicken-pox.		Plague.		Enteric Fever.		Scarlatina.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1903.																	
January			1			1			2				1	1			
February	1	1	6			2						6	5				
March			5			3		1				2	2				
April	1	1	0			3						5	4				
May			1			1											
June			2			1										1	
July			2			1									1		
August			1									1	1				
September																	
October																	
November			3									3	3				
December			2									2	2				
Total for 1903			35			9		3				20	16	1		1	
Total for 1902			21	2	2			4		5		15	11			1	

TABLE No. 3.

Statement showing the number of Pilgrims who returned from Mecca *via* Aden by Vessels during the year 1903 :—

Name of Ship.	Date of arrival.	Number of Crew.	Number of Pilgrims.	Number of Passengers other than Pilgrims.	From what route the Pilgrims arrived.	Number of deaths during voyage.	Chief Cause of death.	Number of cases of infectious diseases on board.
S. S. Mohammadi	5th April 1903	69	18	...	Jeddah <i>via</i> Karachi	...	...	...
S. S. Ahmedi	6th April "	61	720	...	Do. <i>via</i> Aden	9	1 from wounds and 8 from debility.	1 small-pox.
S. S. Mozaffari	7th April "	77	437	...	Do.	...	...	...
S. S. Gulf of Trinidad ...	13th April "	85	334	...	Do.	...	...	...
S. S. Simla	16th April "	75	381	...	Do.	...	...	...
S. S. Nasari	17th April "	67	392	...	Do.	...	...	...
S. S. Naderi	9th May "	72	497	...	Do.	...	...	...
S. S. Shahnoor	15th May "	109	1,080	...	Do.	...	...	...
S. S. Haidari	16th May "	79	523	...	Do. <i>via</i> Aden	...	...	1 small-pox.
S. S. Gulf of Trinidad ...	18th May "	87	815	...	Do. do.	...	...	...
S. S. Mozaffari	23th May "	81	414	...	Do. do.	...	...	2 small-pox.
S. S. Mohammadi	12th June "	76	418	...	Do.	...	...	3 small-pox.
S. S. Naderi	20th June "	69	511	...	Do. <i>via</i> Aden	...	...	...
Total ...		1,028	6,466	...	...	9	...	7 cases of small-pox.

APPENDIX III.

The following table shows when the drainage and water-works were completed and the average annual death-rate since the completion and the average annual death-rate for the five-year period preceding the introduction and the ratio for rural circles and districts, and the number of deaths from plague with their ratios.

Name of District.	Taluka.	Town.	DATE OF COMPLETION OF WORK OF		Average annual death-rate since the introduction of drainage system or water-supply or both.	Average annual death-rate for the five-year period preceding the introduction of drainage system or water-supply or both.	Ratio of Rural Circles, excluding the towns for the year 1908.	Ratio for Districts, excluding the towns for the year 1908.	NUMBER OF DEATHS FROM PLAGUE DURING THE YEAR 1908.		
			Drainage.	Water-supply.					Number.	Ratio per 1,000 of population.	
1	2	3	4	5	6	7	8	9	10	11	
.....	.....	Bombay	...	1879 ^a	1892 ^b	54.25	Not available.	...	...	20,751	27.29
Khandesh	Dhulia	Dhulia	...	...	1896	59.77	32.6	57.94	44.23	503	20.85
Ahmednagar	Ahmednagar	Ahmednagar	...	...	1897	68.69	56.65	114.82	60.09	1,511	42.23
Surat	Olpad	Surat	...	...	1898	48.56	39.77	48.99	41.14	2,291	19.23
Ahmedabad	Daskroi	Ahmedabad	...	1898 ^d	1891	61.86	45.21	34.62	37.64	541	2.99
Karachi	Karachi	Karachi	...	1895	1894	53.06	35.15	12.33	15.87	2,181	19.82
Sukkur	Sukkur	Sukkur	...	...	1895	30.00	28.70	22.87	18.48	...	...
Thana	Salsette	Bandra	...	...	1896	...	22.01	36.32	29.56	...	...
Kolaba	Panvel	Panvel	...	...	1895	43.41	19.5	35.13	29.41	96	9.46
Dharwar	Hubli	Hubli	...	...	1894	44.69	25.7	59.97	75.47	1,696	28.22
Ahmedabad	Viramgam	Viramgam	...	1898 ^g	...	64.24	69.26	54.86	87.64	8	.16

a. Drainage works commenced in 1879 though still in progress.

b. Thana water works completed in 1892. Besides this, there are the Vehar and Tulsi water works.

d. Drainage system partially introduced.

g. In 1893 the gradient of the channel round the town was improved to carry away the sullage water then used to accumulate and stagnate round the town.

APPENDIX IV.

GENERAL POPULATION AND VITAL STATISTICS.

ANNUAL FORM No. I.—Showing the Births registered in the Districts of the Bombay Presidency during 1903.

2	3			4			5			6	7	8	9		
Districts.	POPULATION ACCORDING TO CENSUS OF 1901.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of Males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.
Western Registration District.															
1 Khândesh	721,555	705,240	1,426,805	31,471	29,371	60,842	22.06	20.58	42.64	107.14	..	1.27	21.67	20.56	42.23
2 Nâsik	412,647	402,702	815,349	16,922	15,943	32,865	20.03	19.55	40.18	105.51	..	5.75	10.77	18.67	35.44
3 Thâna	421,931	389,901	811,832	13,320	12,689	26,009	16.43	15.62	32.05	105.14	1.76	..	15.27	14.34	29.62
4 City of Bombay ..	469,240	291,235	760,475	8,382	7,732	16,114	11.02	10.17	21.19	108.41	..	44.80	8.54	7.81	16.34
5 Kolâba	304,412	301,095	605,507	9,389	9,100	19,049	16.38	15.12	31.45	107.95	2.07	..	16.71	16.04	32.75
Central Registration District.															
6 Ahmednagar	417,038	419,779	836,817	18,464	17,709	36,173	22.06	21.24	43.30	103.35	..	17.59	19.08	18.15	37.23
7 Poona	498,243	490,354	988,597	10,273	10,262	20,535	10.45	10.43	31.88	106.02	..	9.13	15.80	14.98	30.78
8 Sholâpur	362,569	353,018	715,587	13,158	12,482	25,640	13.26	12.25	35.51	105.94	..	23.43	16.33	15.36	31.69
9 Sâtâra	508,764	577,266	1,116,030	18,900	17,098	36,008	16.49	15.71	32.20	105.01	..	16.30	15.32	14.30	29.48
0 Ratnâgiri	547,493	620,376	1,167,875	17,787	16,866	34,653	15.23	14.27	29.50	106.73	8.43	..	14.47	13.64	28.11
Southern Registration District.															
1 Belgaum	501,087	491,175	992,262	16,662	15,535	32,197	16.79	15.98	32.75	105.22	..	41.73	15.09	15.27	31.36
2 Dhârwar	580,587	553,046	1,112,613	17,705	17,027	34,732	15.91	15.30	31.23	103.98	..	42.72	17.11	16.53	33.64
3 Bijâpur	367,997	377,408	745,405	13,708	13,546	27,254	16.03	15.42	37.05	101.15	..	11.71	16.43	15.99	32.33
4 Kânara	236,003	218,414	454,417	6,540	6,298	12,838	14.38	13.86	28.25	108.64	..	6.58	15.30	14.98	29.68
Gujarat Registration District.															
5 Surat	317,709	319,173	636,882	9,700	9,263	18,963	16.37	14.83	26.90	105.80	..	15.25	17.04	17.00	35.03
6 Broach	143,504	143,225	286,729	5,304	5,170	10,474	16.18	15.72	35.90	102.69	..	10.42	18.06	17.18	35.24
7 Kaira	375,509	340,664	716,173	12,195	11,261	23,456	17.03	16.72	32.75	108.29	..	24.50	17.09	15.15	32.24
8 Panch Mahâla ..	132,035	123,908	255,943	5,162	4,925	10,087	10.78	10.67	38.66	101.61	12.20	..	17.13	15.93	33.13
9 Ahmedabad	497,328	387,718	785,046	10,900	10,164	21,064	13.78	12.78	26.56	107.63	..	16.80	14.72	13.36	28.08
Sind Registration District.															
0 Karachi	216,211	191,509	442,750	5,435	4,616	10,081	12.23	10.49	22.77	116.98	..	3.08	12.03	10.05	23.81
1 Hyderabad	443,951	414,524	858,475	10,098	7,310	17,408	10.21	7.40	17.61	138.14	..	2.72	10.67	8.55	19.22
2 Thar and Pârkar ..	212,707	181,163	393,870	2,761	2,054	4,815	7.60	5.64	13.25	131.60	..	4.70	9.58	7.33	16.91
3 Lârkhanâ	354,108	301,950	656,058	8,136	6,497	14,633	12.40	9.89	22.29	125.42	..	2.01	15.08	13.07	28.71
4 Sukkur	231,592	241,327	522,719	7,545	6,195	13,740	14.43	11.85	26.28	121.70	4.23	..	15.01	12.39	27.40
5 Upper Sind Frontier ..	129,833	103,147	231,986	3,019	2,291	5,310	13.01	9.88	22.89	131.78	7.60	..	14.86	11.63	26.49
Total for the Presidency ..	9,529,472	8,951,890	18,481,362	292,435	277,404	569,839	16.21	15.01	31.23	107.94	..	12.70	15.96	14.76	30.72

ANNUAL FORM NO. II.—Statement of BIRTHS and DEATHS registered in the DISTRICTS of the BOMBAY PRESIDENCY during the year 1903.

1	2	3	4	5			6		7			8
Serial Number.	Districts.	Area in square miles.	Average population per square mile.	POPULATION CENSUS OF 1901.			BIRTHS.		NUMBER OF DEATHS REGISTERED.			Number of Deaths of males to every 100 Deaths of females.
				Male.	Female.	Total.	Total Number.	Birth-rate per 1,000 of population.	Male.	Female.	Total.	
Western Registration District.												
1	Khandesh	10,011	1,420	721,565	705,240	1,426,805	60,812	43	32,150	30,469	62,619	105
2	Nasik... ..	5,870	135	412,647	402,702	815,349	33,765	40	10,314	18,207	28,521	105
3	Thana... ..	8,673	230	421,331	388,901	810,232	26,989	33	13,000	11,567	24,567	112
4	City of Bombay	32	34,567	498,240	391,335	889,575	16,114	21	28,720	21,468	50,188	133
5	Kolaba	2,131	284	304,412	301,085	605,507	19,049	31	9,393	8,367	17,760	110
Central Registration District.												
6	Ahmednagar... ..	6,561	127	417,028	410,779	827,807	38,238	43	21,031	25,891	46,922	96
7	Poona... ..	5,349	185	498,248	490,554	988,802	31,634	31	21,872	19,631	41,503	100
8	Sholapur	4,541	159	362,509	368,018	730,527	25,660	36	21,168	23,000	44,168	95
9	Satara	4,825	258	568,764	577,268	1,146,032	36,308	33	26,263	26,171	52,434	93
10	Ratnagiri	3,998	292	547,469	620,376	1,167,845	34,468	29	12,273	12,217	24,490	100
Southern Registration District.												
11	Belgaum	4,649	218	501,087	461,175	962,262	32,467	32	36,958	36,060	73,018	99
12	Dharwar	4,602	241	590,587	552,045	1,142,632	34,732	31	41,546	40,713	82,259	102
13	Bijapur	5,809	129	387,997	381,408	769,405	27,249	37	18,118	17,714	35,832	100
14	Kanara	8,145	115	238,003	218,414	456,417	12,888	28	8,412	7,418	15,830	113
Gujarat Registration District.												
15	Surat	1,853	385	317,709	310,173	627,882	19,013	30	14,200	14,492	28,692	96
16	Broach	1,487	108	148,804	143,235	292,039	10,474	35	6,741	6,778	13,519	91
17	Kaira	1,595	449	375,580	340,664	716,244	23,460	32	19,204	21,844	41,048	88
18	Panch Mahals	1,609	182	138,085	128,968	267,053	10,087	38	8,391	8,397	16,788	90
19	Ahmedabad	8,318	203	407,626	387,713	795,339	21,124	26	17,501	18,959	36,460	103
Sind Registration District.												
20	Karachi	11,971	36	246,241	108,509	354,750	10,081	22	6,245	5,195	11,440	120
21	Hyderabad	8,861	119	543,931	444,524	988,455	17,408	17	11,065	9,029	20,094	123
22	Thar and Parkar	13,690	20	202,707	161,162	363,869	4,920	13	3,755	2,777	6,532	143
23	Larkhana	5,000	128	354,103	301,980	656,083	14,633	22	8,405	7,471	15,876	108
24	Sukkur	5,890	96	281,543	241,327	522,870	13,740	20	6,004	5,626	11,630	108
25	Upper Sind Frontier	2,621	68	126,838	102,147	228,985	5,310	22	1,907	1,618	3,525	117
Total for the Presidency...		122,084	150	9,528,473	8,951,890	18,480,363	570,049	31	413,763	397,742	811,505	104

1	2	9								10					
Serial Number.	Districts.	DEATHS PER 1,000 OF POPULATION FROM								MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.					
		Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.					
										Male.	Female.	Total.			
	Western Registration District.														
1	Khandesh	02	07	11.33	13.87	9.01	3.44	29	6.37	44.36	43.24	43.91	45.33	46.43	47.01
2	Nasik	02	03	12.00	14.61	8.07	3.87	29	8.27	46.66	45.21	45.91	47.88	44.73	45.33
3	Thana	01	16	3.24	16.47	1.34	1.07	06	7.26	30.82	20.72	30.29	39.97	36.29	37.85
4	City of Bombay	02	19.2	27.29	3.02	3.60	9.31	70	20.14	61.20	73.70	66.99	60.01	52.60	71.43
5	Kolaba	02	24	2.31	16.00	2.07	1.05	40	7.26	30.84	27.83	29.33	34.07	29.61	34.07
	Central Registration District.														
6	Ahmednagar	01	05	2.88	11.86	6.03	4.06	27	12.53	60.19	61.45	60.89	37.18	34.11	37.95
7	Poona	03	03	11.13	12.01	4.58	4.36	30	5.13	11.69	40.13	41.01	39.33	37.50	36.13
8	Sholapur	02	05	35.02	12.78	4.53	2.47	48	9.64	69.05	66.93	64.94	55.62	39.29	36.34
9	Satara	02	04	24.50	10.43	4.34	1.02	30	8.90	46.17	48.60	47.49	39.66	30.30	37.63
10	Ratnagiri	02	10	03	9.33	2.50	1.89	41	5.86	22.41	19.72	20.98	25.28	20.79	22.27
	Southern Registration District.														
11	Belgaum	02	02	46.87	8.46	3.67	3.20	40	13.63	73.75	75.33	74.58	61.54	50.94	61.15
12	Dharwar	02	02	42.26	11.80	1.73	2.67	32	15.02	74.11	73.74	73.93	63.59	52.02	58.25
13	Bijapur	01	01	121.28	9.25	8.06	3.21	38	11.08	48.37	45.21	46.79	29.99	25.73	29.37
14	Kanara	01	06	1.24	16.61	1.78	0.89	33	13.98	35.04	35.96	34.84	37.67	31.01	31.86
	Gujarat Registration District.														
15	Surat	08	08	10.09	18.14	0.69	10.14	36	5.04	44.89	45.47	45.14	46.74	44.95	46.63
16	Broach	08	08	4.74	24.88	0.63	8.03	36	5.63	46.29	47.29	46.82	66.54	66.83	67.07
17	Kaira	08	08	23.64	14.16	0.90	3.40	48	9.63	61.13	64.01	62.55	64.74	63.33	64.63
18	Panch Mahals	08	08	6.67	15.61	0.20	0.67	43	2.97	25.63	27.12	26.39	53.28	75.17	79.16
19	Ahmedabad	08	08	3.39	31.19	0.49	4.05	32	3.92	42.98	43.82	43.86	65.07	66.19	67.61
	Sind Registration District.														
20	Karachi	14	04	4.91	13.87	0.48	1.65	27	4.80	25.37	28.44	26.85	24.25	32.44	33.47
21	Hyderabad	06	03	16.70	04	1.15	1.15	33	1.33	20.81	20.31	20.56	19.55	15.53	16.22
22	Thar and Parkar	02	02	17.29	01	01	01	37	03	18.62	17.24	17.95	28.04	27.40	27.79
23	Larkhana	1.39	04	21.51	01	10	07	34	08	28.01	24.75	24.31	22.91	24.16	23.44
24	Sukkur	1.25	02	17.29	01	07	07	34	2.53	21.32	23.90	22.61	19.47	20.35	19.66
25	Upper Sind Frontier	08	02	18.60	01	01	01	33	06	14.09	16.19	15.19	19.94	19.79	19.94
	Total for the Presidency...	09	15	15.23	14.05	3.03	3.21	37	7.63	43.42	44.43	43.91	43.99	41.40	42.23

ANNUAL FORM No. III.—DEATHS registered in the DISTRICTS of the BOMBAY PRESIDENCY during the month of the year 1903.

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths registered during the year.	No.
Western Registration District.															
1	Khândesh	7,448	7,098	6,037	4,873	4,000	3,701	3,096	3,946	5,314	4,898	5,475	6,222	62,081	1
2	Nâsik	5,001	3,517	3,220	2,091	1,678	1,399	3,079	2,773	5,119	4,057	3,514	3,442	37,430	2
3	Thâna	2,918	2,421	2,413	2,844	1,780	1,506	1,377	1,869	1,790	1,397	1,021	2,242	24,638	3
4	City of Bombay	4,035	5,592	9,112	8,779	3,953	2,733	2,373	2,577	2,273	2,261	2,190	2,619	80,186	4
5	Kolâba	1,933	1,526	1,785	1,555	1,099	918	1,124	1,532	1,399	1,301	1,519	1,825	17,790	5
Central Registration District.															
6	Ahmednagar	4,141	4,173	3,959	3,575	1,825	1,993	3,000	4,046	6,007	3,187	5,453	4,797	50,955	6
7	Poona	6,978	5,953	3,215	2,389	2,015	2,040	2,134	2,678	3,131	3,106	3,371	3,318	40,568	7
8	Sholâpur	5,120	5,915	3,019	1,639	1,211	1,358	3,111	3,017	5,804	6,737	5,381	4,691	46,794	8
9	Sâkara	7,015	4,148	3,120	2,798	1,308	2,365	3,001	4,469	6,015	6,314	5,086	4,419	54,434	9
10	Râtnâgiri	2,008	2,036	2,034	2,300	1,952	1,844	2,100	2,331	1,914	1,994	1,904	2,264	24,509	10
Southern Registration District.															
11	Belgaum	7,389	6,348	5,710	3,929	3,553	3,371	5,775	8,334	9,370	8,870	7,003	5,694	73,955	11
12	Dhârwar	8,695	7,011	4,730	5,107	2,299	2,917	6,243	7,308	9,932	13,316	10,307	7,971	82,269	12
13	Bijâpur	2,707	2,479	1,723	1,713	1,459	1,506	1,896	2,228	3,515	4,945	5,143	6,161	35,800	13
14	Kânara	1,744	1,547	1,678	1,877	1,030	1,071	1,242	1,372	1,190	1,131	1,202	1,415	15,530	14
Gujarat Registration District.															
15	Surat	4,590	4,467	4,300	2,637	1,415	1,301	1,807	1,547	1,348	1,640	2,047	2,101	23,752	15
16	Broach	1,231	1,150	1,270	1,150	880	967	551	780	1,289	1,501	1,459	1,437	13,514	16
17	Kaira	4,597	5,090	5,490	5,394	1,983	1,321	1,935	1,841	2,091	2,353	2,891	3,129	41,008	17
18	Panch Mahâl	600	635	678	625	411	348	259	390	644	891	942	707	6,898	18
19	Ahmedabad	4,516	4,203	4,693	3,353	2,063	1,948	1,927	1,098	2,236	2,702	3,278	3,496	34,490	19
Sind Registration District.															
20	Karachi	1,421	1,295	1,363	1,576	1,161	534	466	482	500	713	913	1,074	11,445	20
21	Hydrabad	2,343	2,116	2,143	1,801	1,393	1,148	1,063	997	1,011	1,412	2,301	2,809	20,164	21
22	Thar and Pârkar	981	968	838	690	445	333	263	205	292	334	466	664	6,834	22
23	Lâkshnâ	2,018	1,333	1,367	1,153	1,003	1,217	1,103	1,427	837	1,238	1,550	1,245	15,940	23
24	Sukkur	1,100	714	705	747	1,006	1,035	685	798	870	1,163	1,324	1,163	11,530	24
25	Upper Sind Frontier	432	253	235	243	158	235	220	237	814	450	450	810	3,525	25
Total for the Presidency.		62,795	57,292	73,234	60,895	40,632	38,303	44,775	50,008	72,567	58,041	78,981	74,792	611,525	
Ratio of deaths per 1,000 in each month ...		5.02	4.72	4.23	3.30	2.90	2.10	2.42	3.23	3.92	4.50	4.23	4.05	35.91	

ANNUAL FORM No. IV.—DEATHS registered according to AGE in the DISTRICTS of the BOMBAY PRESIDENCY during the year 1903.

1	2	3		4		5		6		7		8		9		10		11		12		13	
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.		15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
Western Registration District.																							
1	Khindash	7,553	6,556	5,893	5,893	1,024	2,099	1,880	2,185	1,239	1,440	2,021	3,130	3,113	2,776	3,514	1,900	2,144	1,513	2,857	3,017	1	
2	Nasik	4,246	3,703	2,795	2,838	1,445	1,158	1,050	1,194	523	574	1,911	2,077	2,159	1,551	1,063	1,355	1,603	1,176	1,757	1,979	2	
3	Thana	2,522	2,400	1,879	1,925	879	634	600	531	597	564	1,253	1,286	1,801	1,317	1,334	871	1,201	935	1,250	1,261	3	
4	City of Bombay	4,759	4,079	2,017	2,012	1,404	1,681	1,939	1,013	908	2,210	6,764	3,040	3,776	1,922	2,103	1,235	1,434	1,125	1,511	1,655	4	
5	Kolaba	1,817	1,475	1,534	1,410	504	511	311	300	369	343	824	791	901	775	915	628	1,101	917	988	1,234	5	
Central Registration District.																							
6	Ahmednagar	4,492	3,914	2,704	2,690	1,737	2,143	1,549	1,985	1,408	1,879	2,072	2,909	2,989	2,879	2,424	2,348	2,102	1,776	2,844	3,404	6	
7	Poona	4,083	3,140	3,150	2,843	1,898	1,470	1,307	1,415	1,013	1,213	2,245	2,248	2,026	1,923	1,983	1,434	1,322	1,144	2,504	2,607	7	
8	Sholapur	3,178	2,924	2,402	2,474	1,901	2,100	1,490	2,169	1,876	1,080	2,663	2,727	2,780	2,747	2,379	2,177	1,916	1,908	2,655	3,017	8	
9	Sakara	3,336	2,945	2,439	3,417	2,181	2,679	2,314	2,405	1,450	1,940	3,144	3,604	2,705	3,026	2,462	2,399	2,100	2,311	2,468	3,028	9	
10	Betnagiri	2,069	1,730	1,733	1,711	714	700	430	397	434	474	909	879	903	860	907	743	1,040	861	2,970	3,711	10	
Southern Registration District.																							
11	Belgaum	3,808	3,315	3,328	3,809	4,161	4,708	4,168	4,302	2,123	1,073	4,950	4,655	5,010	4,611	4,177	3,625	2,846	2,879	3,661	4,819	11	
12	Dharwar	3,556	3,067	3,878	4,180	4,091	4,898	4,032	4,797	2,394	2,378	4,733	5,096	5,343	4,802	4,730	3,730	3,783	3,375	4,296	4,836	12	
13	Bijapur	2,332	1,912	1,040	2,138	1,508	1,014	1,490	1,605	797	770	1,692	1,742	2,301	1,933	2,100	1,554	1,537	1,475	2,333	2,399	13	
14	Kanara	1,592	1,437	622	773	301	300	273	246	253	356	930	995	1,108	612	1,125	738	809	680	1,108	1,126	14	
Gujarat Registration District.																							
15	Surat	2,377	2,099	1,713	1,781	803	1,006	1,851	973	679	632	1,455	1,092	1,550	1,612	1,441	1,236	1,337	1,187	1,935	2,231	15	
16	Broach	1,507	1,404	963	811	254	304	553	367	257	250	601	743	637	876	844	714	674	671	598	854	761	16
17	Kaira	2,755	2,832	1,957	1,998	618	994	1,343	1,836	1,379	1,308	2,817	3,945	3,637	3,293	2,280	2,667	1,756	2,121	1,989	1,815	17	
18	Panch Mahals	725	678	376	370	300	233	233	214	130	170	418	499	462	460	350	356	267	245	207	235	18	
19	Ahmedabad	3,036	2,839	2,322	2,163	641	649	763	767	632	655	2,315	2,078	2,369	2,156	2,056	1,940	1,788	1,673	1,430	2,040	19	
Sind Registration District.																							
20	Karachi	1,370	1,330	669	604	334	309	299	303	293	301	634	798	762	762	504	629	896	411	366	639	530	20
21	Hydrabad	1,823	1,630	1,319	1,743	626	651	440	547	517	447	1,164	1,208	1,057	1,107	1,556	617	951	863	1,432	1,061	21	
22	Thar and Parkar	453	313	104	183	163	129	173	106	175	146	608	379	553	406	354	390	448	299	513	377	22	
23	Lakshmi	1,430	1,471	1,072	948	547	601	351	353	377	310	790	844	1,089	943	1,034	705	779	476	1,197	933	23	
24	Sukkur	1,473	1,312	520	553	375	337	204	127	177	808	503	695	695	651	434	351	351	351	795	633	24	
25	Upper Sind Frontier	448	396	371	343	153	114	66	60	60	56	137	186	161	140	124	147	75	277	321	245	25	
Total for the Presidency																							
		AK 785	NY 741	42,082	43,213	20,515	33,094	20,050	30,322	22,360	32,631	43,892	48,896	40,218	44,178	41,698	34,322	34,759	29,947	43,547	49,565		

ANNUAL FORM No. V.

ANNUAL FORM NO. V.—DEATHS registered according to CLASSES

1	2	3					
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1901.					
		Mahomedans.	Hindus.	Christians.	Parsis.	Other Classes.	Total.
	<i>Western Registration District.</i>						
1	Khandesh	119,179	1,294,407	821	662	11,736	1,126,805
2	Nasik	43,856	769,114	1,780	467	132	815,349
3	Thana	36,257	726,002	42,106	5,238	329	810,832
4	City of Bombay	155,747	522,856	29,645	46,231	5,996	760,475
5	Kolaba	29,339	572,367	1,202	311	2,288	605,507
	<i>Central Registration District.</i>						
6	Ahmednagar	43,761	772,781	19,986	202	87	830,817
7	Poona	45,790	931,588	8,256	2,342	1,126	989,102
8	Sholapur	54,510	664,141	1,555	360	18	720,587
9	Satara	40,888	1,103,881	975	230	56	1,116,030
10	Ratnagiri	82,825	1,080,073	4,929	29	19	1,167,875
	<i>Southern Registration District.</i>						
11	Belgaum	78,389	908,396	5,366	106	5	992,262
12	Dharwar	141,528	966,767	4,046	153	118	1,112,612
13	Bijapur	84,416	650,089	866	29	...	735,400
14	Kanara	29,302	408,962	16,126	16	11	454,417
	<i>Gujarat Registration District.</i>						
15	Surat	54,191	562,812	957	12,516	6,406	636,882
16	Broach	63,408	199,176	685	3,127	25,333	291,729
17	Kaira	68,187	622,615	25,131	209	111	716,253
18	Panch Mahals	21,349	212,197	489	130	20,838	261,003
19	Ahmedabad	87,183	703,552	2,827	1,323	459	795,314
	<i>Sind Registration District.</i>						
20	Karachi	344,516	93,209	2,650	1,841	534	442,750
21	Hyderabad	744,632	212,811	192	89	751	958,475
22	Thar and Parkar	211,309	152,383	5	4	168	363,869
23	Larkhana	557,651	97,687	115	2	628	656,083
24	Sukkur	379,139	143,299	24	64	343	522,919
25	Upper Sind Frontier	209,192	22,784	2	...	7	231,985
	Total for the Presidency ...	3,726,594	14,424,852	170,736	7,681	83,499	18,481,362

in the DISTRICTS of the BOMBAY PRESIDENCY during the year 1903.

4						5					
NUMBER OF DEATHS REGISTERED.						RATIO OF DEATHS PER 1,000 OF POPULATION.					
Maho- medans.	Hindus.	Christians.	Parsis.	Other Classes.	Total.	Maho- medans.	Hindus.	Christians.	Parsis.	Other Classes.	Total.
4,668	57,959	13	4	10	62,651	39.17	44.78	15.83	6.04	.85	43.91
2,602	31,806	36	7	5	37,456	59.33	45.12	20.22	14.90	37.88	45.94
1,325	21,950	1,203	74	9	24,563	33.79	30.20	28.62	14.13	27.38	30.29
10,279	36,693	1,630	1,367	217	50,186	65.99	70.18	54.93	29.57	33.19	65.99
906	16,789	37	...	58	17,790	30.88	29.33	30.78	...	25.34	29.38
3,307	47,434	115	5	94	50,955	75.57	61.35	5.75	24.75	1,080.46	60.89
2,431	37,372	423	31	306	40,563	53.09	40.11	51.24	13.24	271.76	41.01
3,442	43,310	37	1	4	46,794	63.11	65.21	23.79	2.78	222.22	64.94
2,209	52,135	11	2	77	54,434	54.02	47.22	11.28	8.69	1,375.00	47.49
2,050	22,401	57	...	1	24,509	24.75	20.74	11.56	...	52.63	20.93
5,830	67,951	161	3	6	73,955	74.37	74.30	30.56	28.30	1,200.00	74.53
9,351	72,879	124	2	2	82,258	65.36	75.33	30.64	13.07	16.95	73.93
4,236	31,536	25	...	13	35,860	50.18	48.53	23.87	...	...	48.76
652	14,725	416	1	6	15,830	22.25	36.00	27.66	62.50	545.45	34.31
2,286	25,018	48	395	1,003	28,752	42.18	44.45	50.16	31.56	156.88	45.14
2,356	9,330	7	92	729	13,514	45.04	49.35	10.23	29.42	28.78	46.32
4,301	36,529	175	1	2	41,008	63.09	58.67	6.96	4.78	18.02	57.25
905	5,133	24	2	774	6,888	42.40	24.43	49.08	15.38	28.84	26.39
3,356	30,547	56	22	9	34,400	44.23	43.42	19.89	16.63	19.60	43.36
6,787	4,524	73	41	20	11,415	19.70	48.54	27.55	22.27	37.45	25.55
13,165	6,893	3	...	33	20,094	17.08	28.39	15.63	...	43.04	20.33
3,641	2,888	...	1	2	6,532	17.23	18.95	...	250.00	11.90	17.95
13,242	2,695	...	...	3	15,940	23.75	27.59	...	...	4.77	24.30
7,062	4,419	3	1	46	11,530	13.62	30.84	125.00	15.63	131.20	22.05
2,953	570	1	...	1	3,525	14.12	25.02	500.00	...	143.86	15.19
114,242	687,087	4,713	2,052	3,431	811,525	30.65	47.70	27.60	27.11	41.49	43.91

include Buddhists, Sikhs, Jews and all others.

ANNUAL FORM NO. VI.—DEATHS registered from DIFFERENT CAUSES in the

1	2	3	4	5	6	7	8	9	10		
No	Districts and Towns	Population according to Census of 1901,	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea	Respiratory Diseases	Injury		
									Suicide.		Wounding or Accident.
									Male.	Female.	
A.—DISTRICTS.											
Western Registration District.											
1	Khândesh	1,360,869	28	74	15,290	18,677	12,494	4,639	9	7	267
2	Nâsik	771,181	...	277	8,730	11,318	5,101	2,768	3	3	160
3	Thâna	784,673	8	117	2,179	13,085	1,028	794	16	10	415
4	Kolâba	581,621	...	134	1,331	9,542	1,166	584	5	4	162
Central Registration District.											
5	Ahmednagar ..	781,862	9	34	19,414	9,470	4,725	3,266	6	...	169
6	Poona	821,538	1	12	6,422	11,475	3,195	3,515	2	5	137
7	Sholâpur	589,042	...	12	19,854	8,279	2,431	1,335	7	1	218
8	Satâra	1,005,049	...	3	26,874	11,838	4,687	1,037	3	7	260
9	Ratnâgiri	1,132,815	.	116	367	10,681	3,248	2,037	15	4	263
Southern Registration District.											
10	Belgaum	936,131	...	1	42,685	8,127	3,365	3,000	19	25	305
11	Dhârwar	976,302	...	16	41,663	12,442	1,702	2,758	14	38	205
12	Bijâpur	706,674	...	6	14,306	7,166	2,202	2,231	19	38	150
13	Kânara	426,825	4	29	563	7,351	761	370	5	5	117
Gujarât Registration District.											
14	Surat	504,854	...	31	4,358	10,080	198	4,241	6	7	151
15	Broach	238,686	...	...	1,101	6,396	87	1,241	1	2	67
16	Kaira	646,009	...	1	14,981	9,068	584	5,081	10	9	220
17	Panch Mahâls ..	226,115	...	...	1,109	3,616	28	121	...	1	60
18	Ahmedabad ..	571,357	...	...	2,061	16,930	175	1,068	7	9	126
Sind Registration District.											
19	Karâchi	329,850	...	54	8	4,407	40	39	2	2	52
20	Hyderabad ..	919,652	58	117	238	15,307	115	153	7	8	163
21	Thar and Pârkar ..	358,970	...	8	...	6,092	16	3	3	3	35
22	Larkhâna	641,540	875	24	2	13,581	64	40	3	8	152
23	Sukkur	442,588	456	...	1	7,314	72	65	7	5	105
24	Upper Sind Frontier.	221,258	97	3	...	2,907	18	3	1	3	38
Total of Districts ...		16,065,004	1,533	1,069	223,537	235,149	47,487	40,439	170	204	3,997
B.—TOWNS.											
Khândesh District.											
1	Dhulia	24,726	...	28	503	157	121	186	1	...	11
2	Nandurbâr... ..	10,922	...	...	60	111	70	31	1	...	10
3	Chopda	18,612	...	...	1	81	127	56	1	...	6
4	Nasirabad	12,176	...	...	309	46	77	57	...	...	6

DISTRICTS and TOWNS of the BOMBAY PRESIDENCY during the year 1903.

		11	12	13										14
RIMS.		All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Total.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory Diseases.	Injuries.	All other causes.	From all Causes.		
												For the year.	Mean of previous five years.	
89	372	8,620	60 174	·02	·05	11·24	13·73	9·18	3·40	·27	6·34	44·23	47·08	1
36	202	6,301	34,697	...	·36	11·32	14·68	6·61	3·59	·26	8·17	44·99	44·36	2
75	516	5,470	23,197	·01	·15	2·78	16·37	1·31	1·01	·66	6·97	29·56	38·32	3
58	229	4,119	17,105	...	·23	2 29	16·41	2·01	1·00	·39	7·08	29·41	32·73	4
29	204	9,864	46,986	·01	·04	24·83	12·11	6·04	4·18	·26	12·62	60·09	34·53	5
25	169	4,335	29,124	·00	·01	7·82	13·97	3·89	4 28	·21	5·27	35·45	34·66	6
35	261	5,670	37,842	...	·02	33·71	14·05	4·13	2·27	·44	9·62	64·24	31·15	7
55	325	7,371	52,135	...	·00	24·54	10·81	4·18	·95	·29	6·73	47·60	39·17	8
182	464	6,655	23,623	...	·10	·32	9·43	2·87	1·85	·41	5·87	20·85	23·18	9
18	367	12,687	70,232	...	·00	45·60	8·68	3·59	3·20	·39	13·56	75·02	50·03	10
21	278	14,821	73,680	...	·02	42·68	12·74	1·74	2 88	·28	15·18	75·47	52·98	11
15	222	7,828	33,961	...	·01	20·24	10·14	3·12	3·16	·31	11·08	48·06	26 15	12
13	140	5,992	15,210	·01	·07	1·32	17·22	1·78	·87	·33	14·01	35·64	31·88	13
38	202	1,660	20,770	...	·06	8·63	19·97	·39	8·40	·40	3·29	41·14	45·04	14
12	82	1,062	9,963	...	...	4·61	26·80	·37	5·20	·34	4·45	41·77	67·30	15
61	300	6,180	36,193	...	·00	23·19	14·04	·90	7 86	·46	9·57	56·02	61·60	16
32	98	580	5,547	...	...	4·90	15·99	·12	·54	·41	2·57	24·53	71·34	17
42	184	1,086	21,504	...	...	3 61	29·63	·31	1·87	·32	1·90	37·64	63·52	18
30	86	436	5,070	...	·16	·02	13·36	·12	·12	·26	1·32	15·37	20·81	19
115	293	695	16,976	·06	·13	·26	16·64	·12	·17	·32	·76	18·46	17·62	20
55	96	111	6,326	...	·02	...	16·97	·04	·01	·27	·31	17·62	26·02	21
54	217	420	15,223	1·36	·04	·00	21·17	·10	·06	·34	·66	23·73	23·39	22
27	144	128	8,180	1·03	...	·00	16·53	·16	·15	·32	·29	18·48	16·97	23
6	48	48	3,124	·41	·01	...	13·14	·08	·01	·22	·22	14·12	16·90	24
1,123	5,494	112,139	666,850	0·10	·07	13·91	14·64	2·95	2·52	·34	6·96	41·51	38·75	
...	12	186	1,143	...	1·13	20·35	6·35	4·69	5·50	·49	7·52	46·23	70·06	1
4	15	80	317	...	...	5·49	10·16	6·41	2·84	1·37	2·75	29 02	119·40	2
...	7	135	407	...	...	·05	4·35	6·82	3·01	·38	7·26	21·87	84·70	3
...	6	118	613	...	...	25·38	3·78	6·32	4·68	·49	9 69	50·34	58·77	4

1	2	3	4	5	6	7	8	9	10		
No	Districts and Towns.	Population according to Census of 1901.	Cholera	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhœa.	Respiratory diseases.	Injury		
									Suicide.		Wounding or Accident
									Male.	Female.	
B.—TOWNS— <i>continued.</i>											
<i>Nāsik District.</i>											
5	Nāsik	21,490	...	41	284	370	205	122	1	...	20
6	Yeola	16,559	...	35	654	186	112	69	...	...	7
7	Devlāh Cantonment.	2,894	...	...	1	11	8	9	...	...	1
8	Mālegaon do. ..	3,222	...	2	120	31	13	24	...	...	2
<i>Thāna District.</i>											
9	Thāna	15,410	...	5	270	131	51	26	1	1	6
10	Kalyān	10,749	...	12	213	184	40	48	1	...	9
11	City of Bombay ..	760,475	17	1,460	20,751	2,294	2,736	7,074	55	33	448
<i>Kolāba District.</i>											
12	Panvel	10,152	...	1	96	39	52	35	...	1	3
13	Alibāg	5,996	...	6	5	28	13	12	...	...	3
14	Mahād	7,738	...	...	...	62	22	5	2	...	2
<i>Ahmednagar District.</i>											
15	Ahmednagar	35,784	1	6	1,511	237	216	556	1	1	21
16	Sangamner... ..	13,801	...	...	441	48	98	65	...	...	2
17	Ahmednagar Cantonment.	5,370	...	...	81	6	10	8	...	...	1
<i>Poona District.</i>											
18	Poona	120,518	2	15	6,656	806	1,214	548	1	...	13
19	Junnar	9,675	...	...	70	59	10	13	..	...	1
20	Poona Cantonment ..	26,549	...	5	510	90	60	148	..	...	5
21	Kirkee do. ..	10,797	...	...	315	44	32	83	...	...	2
<i>Sholāpur District.</i>											
22	Sholāpur	74,838	...	...	3,715	705	475	302	1	1	40
23	Bārsi	24,342	..	..	329	81	117	59	...	2	10
24	Pandharpur	32,405	...	..	1,140	140	257	83	...	...	13
<i>Sātāra District.</i>											
25	Sātāra	25,493	...	...	625	46	204	87	...	...	8
26	Wāi	13,989	...	...	166	39	49	42	...	...	2
27	Karād	11,499	...	...	418	30	35	9	...	1	1
<i>Ratnāgiri District.</i>											
28	Vengurla	19,018	...	...	1	112	30	43	1	...	2
29	Ratnāgiri	16,042	...	...	256	106	64	71	1	...	6

I—continued.

		11	12	13										14
CER.		All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Total.			Cholera.	Small-pox.	Plague.	Fever.	Dy-sentery and Diar-rhea.	Respi-ratory diseases.	Injuries.	All other causes.	From all Causes.		
												For the year.	Mean of previous five years.	
2	23	231	1,276	...	1.91	13.22	17.21	9.54	5.68	1.07	10.75	59.38	95.78	5
...	7	123	1,186	...	2.11	39.50	11.23	6.76	4.17	.42	7.43	71.62	72.18	6
...	1	26	56	...	...	.35	3.80	2.76	3.11	.35	8.98	19.35	31.24	7
...	2	49	241	...	.62	37.24	9.62	4.03	7.45	.62	15.20	74.78	45.57	8
1	9	304	796	...	.32	17.52	8.50	3.31	1.69	.58	19.73	51.65	59.15	9
1	11	112	570	...	1.12	19.81	12.47	3.72	4.47	1.02	10.12	53.03	53.29	10
...	536	15,318	50,188	.03	1.92	27.29	3.02	3.60	9.30	.70	20.14	65.99	74.45	11
...	4	138	365	...	.10	9.46	3.84	5.12	3.45	.39	13.59	35.95	49.48	12
...	3	69	138	...	1.31	.83	4.67	2.17	2.00	.50	11.51	23.02	33.17	13
...	4	69	182	...	...	...	10.59	2.84	.65	.52	8.92	23.52	29.48	14
...	23	472	3,022	.03	.16	42.23	6.62	6.04	15.54	.64	13.19	84.45	62.85	15
...	2	153	807	...	...	31.95	8.48	7.10	4.71	.14	11.09	58.47	39.84	16
...	1	34	140	...	...	15.08	1.12	1.86	1.49	.19	6.33	26.07	14.54	17
2	16	242	9,499	.02	.12	55.22	6.69	10.07	4.54	.13	2.31	78.80	68.11	18
...	1	59	212	...	...	7.24	6.10	1.03	1.34	.10	6.10	21.91	38.22	19
...	5	379	1,197	...	.19	19.21	3.39	2.26	5.57	.19	14.28	45.09	35.62	20
...	2	55	531	...	...	29.17	4.08	2.96	7.89	.19	5.09	49.18	25.44	21
1	43	822	6,062	...	...	49.60	9.41	6.34	4.03	.57	10.98	80.93	49.89	22
...	12	191	972	...	...	21.82	3.46	4.83	2.43	.50	7.88	40.92	70.17	23
...	13	265	1,898	...	...	35.18	4.32	7.93	2.56	.40	8.18	58.57	45.36	24
3	11	222	1,195	...	...	24.52	1.80	3.01	3.41	.43	8.71	48.88	43.30	25
...	2	214	512	...	...	11.87	2.79	3.50	3.00	.14	15.30	36.60	50.26	26
1	3	97	592	...	...	36.35	2.61	3.04	.78	.26	8.44	51.48	53.71	27
...	3	81	270	...	...	.05	5.89	1.58	2.26	.16	4.26	14.20	33.11	28
1	8	111	616	...	...	15.96	6.61	3.99	4.42	.50	6.92	33.40	31.47	29

1	2	3	4	5	6	7	8	9	10		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Inj.		
									Suicide.		Wounding or Accident.
									Male.	Female.	
B.—TOWNS— <i>continued.</i>											
<i>Belgaum District.</i>											
30	Belgaum	26,237	1	...	915	106	49	68	2	...	16
31	Gokik	9,860	...	...	36	47	73	48	...	...	2
32	Athni	11,107	...	...	1,165	87	50	41	...	1	6
33	Belgaum Cantonment.	8,927	...	...	220	24	10	21	...	1	...
<i>Dhárwār District.</i>											
34	Dhárwār	30,538	...	...	452	224	69	101	3	3	14
35	Hubli	60,214	...	...	1,699	136	111	244	1	3	20
36	Gadag-Bettigeri ...	30,652	...	1	1,329	63	36	123	...	1	7
37	Ránebennur	14,851	...	...	1,379	40	12	84	1	...	21
<i>Bijápur District.</i>											
38	Bijápur	23,776	1	...	1,007	60	39	114	2	...	19
39	Kaladgi	4,950	..	..	320	18	13	18	...	...	...
<i>Kánara District.</i>											
40	Kárwār	16,774	...	...	1	124	23	19	...	...	1
41	Kumta	10,818	...	...	...	71	20	15	...	...	4
<i>Surat District.</i>											
42	Surat	119,171	..	11	2,291	1,379	229	2,120	...	...	21
43	Bulsár	12,857	..	9	161	91	17	99	...	...	5
<i>Broach District.</i>											
44	Broach	42,862	1	1	490	725	67	844	1	...	15
45	Jambusar	10,181	...	...	376	122	2	257	...	...	3
<i>Kaira District.</i>											
46	Kaira	10,313	...	...	382	167	12	209	...	...	3
47	Nadiád	31,435	..	...	1,253	520	60	384	...	1	20
48	Borsad	13,001	...	...	64	135	15	137	...	...	6
49	Kapadvanj	15,405	...	..	257	252	36	207	...	...	9
<i>Panch Maháls District.</i>											
50	Godhra	20,698	...	...	147	168	11	19	1	1	6
51	Dohad	13,990	...	...	480	302	13	10	...	1	6
<i>Ahmedabad District.</i>											
52	Ahmedabad	181,774	...	...	541	6,611	178	1,909	...	2	48
53	Gogha	4,738	...	...	59	129	10	14	...	...	...
54	Viramgám	18,952	...	...	3	550	9	171	1	...	6
55	Dholka	14,971	...	...	2	551	17	60	...	...	9
56	Ahmedabad Cantonment.	3,492	...	...	31	38	...	...	...	...	...

VI—continued.

		11	12	13										14
RIES.		All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Total			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all Causes.		
												For the year.	Mean of previous five years	
...	18	367	1,524	0.04	...	34.87	4.04	1.87	2.59	0.69	13.99	58.09	80.21	30
...	2	109	815	...	...	3.65	4.77	7.40	4.87	0.20	11.06	31.95	77.78	31
...	7	192	1,542	...	...	104.89	7.83	4.50	3.69	0.63	17.29	138.88	42.15	32
...	1	66	342	...	...	24.65	2.69	1.12	2.35	0.11	7.39	38.31	65.23	33
...	20	418	1,284	...	...	14.77	7.32	2.26	3.30	0.66	13.66	41.97	64.13	34
...	24	777	2,991	...	...	28.22	2.26	1.84	4.05	0.40	12.90	49.67	59.25	35
...	8	397	2,463	...	0.03	59.67	2.25	1.17	4.02	0.26	12.95	80.35	44.61	36
...	22	803	1,840	...	...	92.86	2.69	0.81	5.66	1.48	20.40	123.90	43.43	37
1	22	256	1,499	0.04	...	42.35	2.52	1.64	4.80	0.93	10.77	63.05	34.12	38
...	...	31	400	...	...	64.65	3.63	2.63	3.63	...	6.26	80.80	31.00	39
...	1	134	308	...	...	0.06	7.39	1.73	1.13	0.06	7.99	18.36	21.50	40
...	4	202	312	...	...	...	6.56	1.55	1.39	0.37	18.67	28.84	24.92	41
...	21	1,499	7,550	...	0.09	19.22	11.57	1.92	17.79	0.18	12.58	63.37	48.56	42
...	5	50	432	...	0.70	12.52	7.08	1.32	7.70	0.39	3.89	33.60	50.33	43
2	18	625	2,771	0.02	0.02	11.43	16.92	1.56	19.69	0.42	14.59	64.65	85.50	44
1	4	13	774	...	...	38.93	11.99	0.20	25.23	0.39	1.28	76.02	68.38	45
1	4	57	831	...	...	37.04	16.19	1.16	20.27	0.39	5.53	80.58	62.65	46
2	23	298	2,538	...	...	39.86	16.54	1.91	12.22	0.73	9.48	80.74	81.23	47
...	6	162	519	...	...	4.92	10.38	1.16	10.54	0.46	12.46	39.92	116.35	48
1	10	163	925	...	...	16.68	16.36	2.34	13.44	0.65	10.58	60.05	118.23	49
1	9	98	452	...	...	7.03	8.04	0.53	0.91	0.43	4.69	21.63	140.99	50
1	8	70	839	...	...	34.74	21.59	0.93	0.72	0.57	5.00	63.55	170.13	51
1	51	1,626	10,018	...	...	2.98	36.37	0.98	10.50	0.28	8.94	60.05	81.52	52
...	...	72	284	...	...	12.30	26.85	2.08	2.92	...	15.01	59.19	99.65	53
...	7	156	896	...	...	0.16	29.02	0.48	9.02	0.37	8.23	47.28	85.87	54
1	10	175	815	...	...	0.13	36.50	1.14	4.01	0.67	11.69	54.44	88.03	55
...	...	6	75	...	...	8.86	10.88	...	...	...	1.72	21.48	15.16	56

1	2	3	4	5	6	7	8	9	10		
No.	Districts and Towns.	Population according to Census of 1901.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Inj.		
									Suicide.		Wound- ing or Accident.
									Male.	Female.	
	B.—TOWNS— concluded.										
	<i>Karachi District.</i>										
57	Karachi	112,900	...	2	2,181	1,617	174	649	1	...	81
	<i>Hyderabad District.</i>										
58	Hyderabad	68,823	...	6	283	1,205	...	988	1	1	33
	<i>Thar and Parkar District.</i>										
59	Umarkot	4,899	...	...	...	199	...	...	...	...	1
	<i>Larkhāna District.</i>										
60	Larkhāna	14,543	37	...	...	530	6	1	...	...	7
	<i>Sukkur District.</i>										
61	Chikārpur	49,491	114	11	1	1,012	41	67	2	3	11
62	Sukkur	30,890	82	...	...	715	27	53	...	...	14
	<i>Upper Sind Frontier District.</i>										
63	Jacobabad	10,727	33	2	...	248	3	...	...	...	2
	Total of Towns ..	2,116,358	280	1,003	57,732	24,555	7,956	18,910	81	58	1,027
	Total for the Presi- dency ...	18,481,362	1,825	2,732	181,269	259,704	55,443	59,349	254	262	5,024

VI—concluded.

		11	12	13										14
RIDS.		All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.										No.
Snake-bite, or killed by wild beasts.	Total.			Cholera.	Small- pox.	Plague.	Fever.	Dysen- tery and Diar- rhea.	Respi- ratory diseases.	Injuries.	All other causes.	From all Causes.		
												For the year.	Mean of previous five years.	
...	32	1,600	6,375	...	0.02	19.32	14.39	1.54	5.75	0.28	14.97	56.47	72.98	57
...	35	604	3,118	...	0.12	4.11	17.51	...	14.28	0.51	8.77	45.30	45.42	58
...	1	6	206	...	...	...	40.62	...	...	0.20	1.23	42.05	149.08	59
...	7	136	717	2.55	...	...	36.44	0.41	0.07	0.48	9.35	49.30	42.82	60
1	17	1,040	2,803	2.30	0.22	0.02	20.45	0.83	1.35	0.34	21.02	48.53	40.94	61
1	15	153	1,047	2.66	...	...	23.15	0.87	1.72	0.49	5.00	33.89	29.31	62
...	2	113	401	3.07	0.19	...	23.12	0.28	...	0.19	10.53	37.38	42.57	63
30	1,199	32,371	144,675	0.12	0.69	23.89	10.16	3.29	7.83	0.49	13.40	59.87	66.47	
1,153	6,693	144,510	811,525	0.09	0.15	15.22	14.03	3.00	3.21	0.37	7.82	48.31	42.22	

ANNUAL FORM No. VII.—DEATHS registered from CHOLERA in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1903.

1	2	3	4	5												6			7			8	9		
No.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	No.
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.													Male.	Female.	Total.	Male.	Female.	Total.		
1	Western Registration District.																								
2	Khandesh ...	25	2	2,641	4	...	...	...	...	...	...	...	4	23	1	...	...	14	14	28	*02	*02	*02	2.79	1
3	Nasik ...	16	...	1,645	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.28	2
4	Thana ...	11	1	1,681	1	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4	*03	*03	*01	4.62	3
5	City of Bombay ...	1	1	1	1	2	1	2	...	2	1	4	3	1	...	...	1	11	6	17	*03	*03	*02	1.18	4
6	Kolaba ...	11	...	1,481	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.75	5
7	Central Registration District.																								
8	Ahmednagar ...	14	2	1,853	2	...	...	...	...	...	...	1	...	9	...	...	...	6	4	10	*01	*01	*01	1.41	6
9	Poona ...	12	2	1,187	2	...	...	...	...	...	...	1	1	1	...	...	...	3	...	3	...	...	...	1.46	7
10	Sholapur ...	10	...	716	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.08	8
11	Satara ...	15	...	1,342	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.93	9
12	Ratnagiri ...	10	...	1,306	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.11	10
13	Southern Registration District.																								
14	Belgaum ...	11	1	1,073	1	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	2.39	11
15	Dharwar ...	17	...	1,298	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.87	12
16	Bijapur ...	10	1	1,118	1	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	...	.90	13
17	Kanara ...	13	1	1,287	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	*01	...	*01	.48	14
18	Gujarat Registration District.																								
19	Surat ...	10	...	776	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.10	15
20	Broach ...	8	1	408	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	*01	...	...	2.19	16
21	Kaira ...	11	...	605	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.3	17
22	Panch Mahals ...	7	...	661	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.08	18
23	Ahmedabad ...	12	...	869	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.71	19
24	Sind Registration District.																								
25	Karachi ...	12	...	632	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8.37	20
26	Hyderabad ...	13	3	1,411	11	...	...	...	...	...	...	46	12	...	...	...	...	27	31	58	*05	*07	*06	1.54	21
27	Thar and Parkar ...	9	...	668	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.19	22
28	Larkhans ...	11	11	712	77	...	...	...	...	18	211	212	281	94	89	1	6	493	419	912	1.29	1.39	1.39	.54	23
29	Sukkur ...	9	7	609	51	...	...	...	...	108	189	40	106	72	66	11	...	348	306	653	1.28	1.27	1.27	...	24
30	Upper Sind Frontier.	5	5	860	13	...	...	...	...	2	10	34	...	32	52	...	...	70	60	130	.51	.69	.50	.36	25
Total for the Presidency		233	35	25,847	185	2	2	2	...	191	413	338	407	239	212	12	7	978	849	1,825	*10	*09	*09	2.06	

ANNUAL FORM No. VIII.—DEATHS registered from SMALL-POX in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1903.

1	2	3	4	5												6			7		8			9	10			
No.	Districts	CIRCLES OF REGISTRATION.	VILLAGES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			NUMBER OF DEATHS AMONG CHILDREN.		RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	No.			
																Male.	Female.	Total.	Under 1 year.	1 to 10 years.	Male.	Female.	Total.					
																										Number in each District.	Number from which deaths from Small-Pox were reported.	Number in each District.	Number from which deaths from Small-Pox were reported.
Western Registration District.																												
1	Khandesh ...	25	9	2,611	20	5	12	15	16	7	9	1	1	1	18	52	50	103	44	49	0.07	0.07	0.07	0.37	1			
2	Nasik ...	16	14	1,616	47	128	60	18	31	22	14	14	6	7	20	43	20	185	355	117	231	0.18	0.38	0.43	0.14	2		
3	Thana ...	11	10	1,631	27	1	9	12	20	20	10	2	12	10	4	13	45	75	121	81	85	0.18	0.16	0.16	0.39	3		
4	City of Bombay ...	1	1	1	1	96	226	353	363	248	06	62	32	12	1	2	10	795	665	1,460	486	451	1.70	2.28	1.92	0.97	4	
5	Kolaba ...	11	10	1,461	47	1	11	14	19	23	14	13	17	5	3	12	6	72	71	143	61	80	0.24	0.23	0.24	0.39	5	
Central Registration District.																												
6	Ahmednagar ...	14	9	1,352	18	5	5	2	5	5	1	1	1	...	6	...	9	24	16	40	19	16	0.08	0.04	0.06	0.08	6	
7	Poona ...	12	9	1,187	9	...	1	1	9	3	13	4	...	1	1	...	...	18	14	32	21	3	0.04	0.03	0.03	0.17	7
8	Sholapur ...	10	2	716	5	...	1	1	...	...	...	...	2	...	1	6	1	4	8	12	3	2	0.01	0.02	0.02	0.10	8
9	Satara ...	15	1	1,342	1	...	...	...	...	...	...	...	...	...	...	3	2	1	3	3	...	...	...	...	...	9	
10	Ratnagiri ...	10	2	1,306	42	9	3	19	30	20	6	17	7	3	...	2	...	67	40	116	81	42	0.12	0.08	0.10	0.31	10	
Southern Registration District.																												
11	Belgaum ...	11	1	1,073	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	0.16	11	
12	Dharwar ...	17	3	1,298	6	...	1	7	1	3	4	...	1	5	12	17	4	6	...	0.02	0.02	0.02	0.23	12
13	Bijapur ...	10	3	1,118	5	1	...	...	1	1	...	2	...	...	1	...	...	4	2	6	3	2	0.01	...	0.01	0.15	13
14	Kanara ...	13	6	1,287	17	6	3	10	7	...	2	...	1	...	...	...	...	11	18	29	3	1	0.05	0.08	0.08	0.95	14
Gujarat Registration District.																												
15	Surat ...	10	5	776	9	3	6	12	13	9	5	...	1	...	...	2	...	27	24	51	15	21	0.09	0.08	0.08	0.07	15
16	Broach ...	8	1	408	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	16
17	Kaira ...	11	1	605	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	0.02	17
18	Panch Mahals ...	7	...	661	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.10	18
19	Ahmedabad ...	12	...	869	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.02	19
Sind Registration District.																												
20	Karachi ...	12	7	632	22	12	3	8	6	3	8	4	...	...	...	...	...	32	24	56	9	26	0.13	0.12	0.14	0.25	20
21	Hyderabad ...	13	11	1,411	25	3	18	1	7	32	19	10	10	9	6	1	6	78	62	125	13	28	0.18	0.12	0.13	0.19	21	
22	Tar and Parkar ...	...	...	668	5	...	3	4	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22
23	Larkhano ...	11	5	712	4	8	9	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.02	23
24	Sukkur ...	9	1	608	1	3	1	...	1	4	1	1	...	...	...	...	...	11	18	29	8	7	0.02	0.04	0.04	0.04	24
25	Upper Sind Frontier ...	5	2	340	2	2	...	...	1	4	1	...	...	...	...	...	...	5	6	11	1	...	0.02	0.02	0.02	0.11	25

ANNUAL FORM NO. IX.- DEATHS registered from FEVERS in the DISTRICTS of the BOMBAY PRESIDENCY
during each month of the year 1903.

Districts.	Number in each District.	3		4		5												6		7			8	9	
		CITIES OF LOCAL TERRITORY.		VILLAGES.														TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.					
		Number from which deaths were reported.	Number in each District.	Number from which deaths were reported.	Number in each District.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.			Total.	Mean ratio per 1,000 for previous five years.
Western Registration District.																									
Andesh ...	25	25	2,041	2,875	1,478	1,751	1,014	1,591	1,479	1,247	1,051	1,198	1,316	1,350	1,697	9,511	9,561	10,072	13,131	10,560	13,337	14,060	1		
Alk ...	18	18	1,145	1,464	1,369	1,137	1,003	1,130	877	701	78	881	870	925	1,183	6,165	5,778	11,016	14,982	14,380	14,461	10,411	2		
Alina ...	11	11	1,691	1,607	1,561	1,350	1,338	1,199	912	710	710	1,011	845	1,214	1,301	6,077	6,373	13,350	16,638	16,781	13,477	11,038	3		
City of Bombay ...	1	1	1	1	210	210	210	177	171	194	150	174	107	107	210	1,311	1,311	2,394	2,900	3,200	3,028	7,898	4		
Alta ...	11	11	1,491	1,816	940	890	890	606	630	462	611	516	737	761	921	5,011	4,690	9,601	16,446	16,564	16,000	14,981	5		
Central Registration District.																									
Medanagar ...	14	14	1,362	1,181	916	890	741	700	500	507	701	859	832	1,038	801	4,877	4,904	9,781	11,067	11,066	11,460	9,498	6		
Alina ...	12	12	1,147	1,121	1,292	1,130	1,151	1,032	1,017	901	913	1,181	1,013	1,110	919	5,453	5,370	10,823	12,471	11,941	13,611	13,007	7		
Alip ...	11	11	718	680	647	611	572	505	387	553	708	927	948	1,020	941	4,637	4,671	9,308	13,822	12,777	13,768	13,008	8		
Alra ...	15	15	1,312	1,214	1,270	911	811	811	740	879	852	1,116	1,011	1,011	1,019	5,990	5,553	11,543	10,565	10,331	10,493	7,799	9		
Alqiri ...	10	10	1,500	1,317	630	811	1,041	1,225	1,027	649	817	811	785	802	711	5,319	5,380	10,699	10,008	9,807	9,938	11,031	10		
Eastern Registration District.																									
Alpami ...	11	11	1,073	1,004	817	754	891	730	479	501	678	719	699	711	729	4,378	4,019	8,397	9,773	9,191	8,468	4,881	11		
Alpur ...	17	17	1,313	1,216	1,181	1,131	1,131	952	722	753	921	981	910	1,282	1,349	5,614	5,415	11,029	11,077	11,311	11,404	9,951	12		
Alpur ...	11	11	1,110	1,016	801	691	421	787	619	623	817	615	623	61	792	5,515	5,346	10,861	9,944	9,778	9,865	7,813	13		
Alpura ...	18	18	1,237	1,083	863	723	708	619	408	663	607	303	516	636	631	5,911	5,902	11,813	12,711	16,300	16,611	16,821	14		
North Registration District.																									
Alra ...	10	10	770	724	1,754	1,434	1,351	875	601	622	670	644	831	789	671	1,104	5,624	5,922	11,546	17,711	18,565	19,141	31,861	15	
Alra ...	8	8	413	343	713	670	611	631	619	483	577	411	521	670	177	77	3,646	3,637	7,283	12,281	12,401	11,819	41,008	16	
Alra ...	11	11	613	572	1,274	1,240	1,251	817	647	453	411	530	670	7,919	670	5,453	5,453	11,114	13,111	14,401	14,111	31,717	17		
Alra ...	7	7	601	593	1,213	1,213	1,213	821	891	811	211	311	311	311	311	2,101	2,101	4,201	13,601	14,101	14,101	14,101	18		
Medanabad ...	12	12	869	837	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	19		
South Registration District.																									
Alra ...	12	12	693	693	972	781	571	572	331	270	201	201	301	401	611	3,710	2,741	6,451	13,441	13,901	13,901	13,901	20		
Alra ...	13	13	1,111	1,111	1,012	1,179	1,181	1,547	1,121	919	740	741	703	1,011	1,093	1,011	7,111	16,511	16,711	16,711	16,711	16,711	21		
Alra ...	9	9	619	600	1,061	911	771	771	411	311	250	311	270	311	181	611	3,611	3,611	7,221	17,801	18,101	17,211	41,001	22	
Alra ...	11	11	713	713	1,910	1,311	1,311	1,112	311	979	861	741	741	1,041	1,673	1,673	3,346	14,111	14,111	14,111	14,111	14,111	23		
Alra ...	9	9	610	611	913	611	311	612	674	691	607	511	611	611	1,011	1,737	1,737	3,474	13,611	13,611	13,611	13,611	24		
Alra ...	5	5	390	390	400	230	211	104	172	211	61	211	251	311	421	1,001	1,001	2,001	13,401	13,401	13,401	13,401	25		
Total for the Presidency.																									
Alra ...	233	233	15,847	10,123	23,850	21,201	21,011	22,350	17,611	15,631	13,771	19,011	19,711	21,041	21,111	81,011	123,111	204,711	13,401	14,001	14,001	14,001	14,001		

ANNUAL FORM NO. IX.- DEATHS registered from PLAGUE in the DISTRICTS of the BOMBAY PRESIDENCY
during each month of the year 1903.

Districts.	No. in each District.	CITIES OF LOCAL TERRITORY.		VILLAGES.												TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.			M. a ratio per 1,000 for previous five years.	Number.		
		Number from which deaths were reported.	Number in each District.													Male.	Female.	Total.	Male.	Female.			Total.	
				January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.									
Western Registration District.																								
Andesh ...	21	24	2,041	503	8,802	3,346	2,351	939	17	...	...	167	1,043	1,271	1,07	1,078	8,374	7,855	16,763	11,611	11,141	11,993	8,911
Alk ...	10	10	1,043	918	2,211	1,211	999	313	47	24	74	625	791	1,193	1,191	672	4,401	4,481	8,780	11,991	12,001	12,001	3,111	
Alina ...	11	11	1,681	86	511	826	441	112	131	137	70	72	77	78	26	85	1,574	1,144	2,718	3,111	3,001	3,001	3,001	
City of Bombay ...	1	1	1	1	1,018	814	6,354	6,721	1,681	657	817	303	322	213	221	210	13,201	7,487	20,688	25,701	27,701	27,701	4	
Alta ...	11	10	1,481	66	321	813	357	171	11	1	8	61	63	48	28	69	827	635	1,462	2,771	3,001	2,861	1,111	
Central Registration District.																								
Medanagar ...	14	14	1,352	431	1,563	1,851	1,371	549	30	10	131	1,896	2,567	5,010	2,816	2,798	10,903	11,151	21,447	21,711	20,351	25,681	97	
Alina ...	12	12	1,127	21	4,676	3,779	1,112	175	7	20	34	153	611	917	1,121	1,237	7,072	0,011	13,973	11,101	14,001	14,131	7,111	
Alra ...	10	10	710	429	1,114	1,341	904	807	83	61	427	1,407	3,679	4,306	3,111	2,810	12,347	12,941	23,233	33,091	30,351	32,701	7	
Alra ...	13	13	1,343	613	5,313	4,121	2,345	930	148	871	919	1,027	3,651	3,772	2,630	2,633	13,313	11,890	28,183	23,231	26,741	24,301	8	
Alqiri ...	10	9	1,306	31	27	32	68	141	60	65	83	63	63	10	18	60	841	203	621	631	47	63	10	
Eastern Registration District.																								
Alpami ...	11	11	1,073	890	4,703	3,050	2,151	1,013	033	1,313	2,378	2,811	6,804	6,039	4,617	3,262	22,271	22,766	45,211	41,411	40,351	41,717	11	
Alpur ...	17	17	1,298	611	5,315	4,073	2,010	620	141	553	2,433	4,111	4,073	0,011	6,183	4,037	24,007	23,015	47,023	43,811	41,401	42,211	12	
Alpur ...	10	10	1,118	858	1,842	1,206	663	87	0	3	27	321	1,751	2,121	3,383	1,113	7,043	7,051	15,023	21,011	21,011	21,011	13	
Alpura ...	18	6	1,367	34	77	61	38	11	1	1	9	87	80	62	77	79	303	261	661	1,231	1,101	1,241	14	
North Registration District.																								
Alra ...	10	9	778	195	1,206	1,516	1,697	785	161	95	163	278	209	207	311	178	3,238	3,232	6,910	10,351	11,001	10,601	3,711	
Alra ...	8	8	408	33	70	134	284	149	10	...	...	69	411	474	240	211	563	1,014	1,007	6,331	7,101	6,741	8,301
Alra ...	11	11	615	274	1,231	8,468	6,013	3,430	312	...	...	18	211	410	461	7,519	0,730	16,947	19,101	24,301	23,001	3,701	
Alra ...	7	7	611	47	123	118	160	61	4	...	...	30	261	871	873	240	815	637	1,743	8,401	8,401	8,401	17
Alra ...	13	10	863	64	450	621	917	452	60	1	...	6	0	20	61	159	1,318	1,459	2,697	3,011	3,791	3,801	26	
Sind Registration District.																								
Alra ...	12	6	693	8	98	137	403	743	878	63	6	...	1	7	26	88	28	1,194	881	2,199	4,471	3,041	4,494	6,063
Alra ...	18	11	1,411	33	8	33	80	108	19	1	33	70	60	100	298	298	621	641	611	641	661
Alra	668
Alra ...	11	1	713	1
Alra ...	9	2	601	2	1
Alra ...	5	...	390
Upper Sind Frontier.																								
Total for the Presidentcy	283	293	24,847	4,723	38,310	39,478	32,188	17,571	3,011	3,208	3,033	17,454	30,440	37,319	30,170	21,451	141,579	139,710	281,301	11,861	16,411	11,221	6,681	

ANNUAL FORM NO. X.—DEATHS registered from DYSENTERY and DIARRHŒA in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1903.

1	2	3	4	5												6			7			8		
Number.	Districts	Circles of Registration		Villages.														Total			Ratio of Deaths per 1,000 of Population			Mean ratio per 1,000 for previous five years
		Number in each District	Number from which Deaths from Dysentery and Diarrhoea were reported	Number in each District	Number from which Deaths from Dysentery and Diarrhoea were reported	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	
Western Registration District																								
1	Khandesh ..	25	25	2,641	1,507	869	1,088	878	1,061	1,095	1,021	918	1,173	1,216	1,008	1,135	1,241	7,083	5,821	12,879	0.77	0.26	0.02	11.02
2	Nashik ...	16	16	1,015	1,050	419	416	366	421	324	474	545	577	454	519	494	456	2,691	2,445	5,180	7.2	6.06	0.67	7.57
3	Thana ..	11	11	1,811	375	181	104	51	61	59	60	68	151	90	81	84	117	610	479	1,119	1.1	1.23	1.88	2.25
4	City of Bombay ..	1	1	1	1	317	268	213	271	217	205	234	236	191	170	160	244	1,468	1,268	2,736	8.1	4.56	3.61	5.01
5	Kolaba ..	11	11	1,451	455	185	120	117	90	72	61	91	118	118	87	92	112	713	540	1,253	2.31	1.79	3.07	3.61
Central Registration District																								
6	Ahmednagar ..	11	11	1,972	866	400	286	201	308	803	410	715	685	619	546	420	234	2,720	2,329	5,049	6.02	3.55	8.03	9.73
7	Poona ...	12	12	1,187	670	375	472	302	371	310	313	505	646	499	440	241	111	2,337	2,474	4,811	4.1	4.4	4.56	7.14
8	Sholapur ..	10	10	716	601	341	211	153	144	136	172	276	410	468	318	312	253	1,731	1,549	3,280	1.7	1.1	4.5	5.10
9	Satara ..	15	15	1,219	823	349	277	302	216	314	398	413	717	561	579	461	475	2,543	2,472	5,015	1.47	1.21	1.4	1.69
10	Ratnagiri ...	10	10	1,071	916	347	307	310	358	374	291	325	378	316	291	161	98	1,779	1,585	3,364	5.5	2.51	2.8	3.90
Southern Registration District																								
11	Belgaum ..	11	11	1,071	671	341	224	222	212	261	214	274	351	371	310	270	211	1,770	1,477	3,247	5.1	3.1	3.5	5.6
12	Dhule ..	17	17	1,298	177	170	102	106	112	113	115	219	201	212	199	188	199	981	847	1,828	1.73	1.2	1.7	2.1
13	Bijapur ..	10	10	1,111	607	184	50	58	90	81	111	215	310	251	291	238	204	1,071	1,177	2,248	0.83	0.20	3.06	3.6
14	Karnatak ...	1	13	1,287	233	57	57	43	37	46	55	82	127	80	73	70	74	440	370	810	1.86	1.09	1.74	1.8
Agroha Registration District																								
15	Surat ...	10	10	777	91	76	87	65	24	24	18	21	41	20	28	23	27	245	199	444	0.77	0.62	0.09	1.67
16	Broach ..	8	8	404	52	13	14	11	12	7	11	8	21	15	21	19	11	95	61	156	0.64	0.48	0.3	1.26
17	Kaira ..	11	11	605	170	101	59	69	50	45	36	62	82	75	57	39	39	402	365	767	1.77	0.90	0.99	5.90
18	Panch Mahals ..	7	7	691	20	4	4	2	5	3	5	9	6	2	1	6	5	29	23	52	0.22	0.15	0.20	13.1
19	Ahmedabad	12	11	861	51	50	48	47	31	11	11	14	23	51	30	24	40	218	171	389	0.50	0.44	0.49	3.88
Sind Registration District																								
20	Karachi ...	12	7	682	15	28	20	28	22	24	16	15	15	11	9	10	22	129	86	214	0.32	0.43	0.48	1.16
21	Hyderabad ...	13	10	1,411	35	8	6	4	13	9	5	14	22	11	8	9	7	74	41	115	0.14	0.09	0.11	0.92
22	Thar and Parkar	9	4	668	13	1	2	8	2	...	1	1	1	1	1	2	2	9	8	18	0.04	0.05	0.04	0.12
23	Larkhna ...	11	10	712	25	3	2	1	...	5	24	0	13	2	5	2	4	40	30	70	0.11	0.10	0.10	0.10
24	Sukkur ...	8	6	809	17	20	4	9	10	20	3	6	15	14	16	10	13	86	54	140	0.31	0.22	0.27	0.37
25	Upper Sind Frontier.	5	6	390	13	3	2	1	...	...	2	...	4	5	3	1	...	15	6	21	0.12	0.06	0.09	0.08
Total for the Presidency ...		288	208	25,847	10,224	4,715	4,203	3,618	3,865	3,975	4,186	5,009	6,189	5,727	5,239	4,517	4,353	29,586	25,857	55,443	3.10	2.80	3.00	5.01

Annual Reports.—

Annual Report of the Sanitary Commissioner for the Government of Bombay for the year 1903.

General Department.
No. 4589

Bombay Castle,
27th August 1904.

Letter from the Sanitary Commissioner for the Government of Bombay, No. B.—1516, dated the 6th June 1904—

Submitting the Annual Report of his Department for the year 1903.

Memorandum from the Sanitary Commissioner for the Government of Bombay, No. B.—1517, dated the 6th June 1904.

Memorandum from the Surgeon General with the Government of Bombay, No. S.D.—1893, dated the 17th June 1904.

RESOLUTION.—The Sanitary Commissioner's report for 1903 has two notable features, a record of births which is a lakh below the number registered nine years ago, and more than 50,000 less than in 1902, and a record of deaths more than 90,000 in excess of that of 1902, due to a mortality from plague, which has risen 120 per cent. in two years. The greatest fall in the birth-rate has occurred in the Districts of Khándesh, Thána and Kolába in the Western, Poona in the Central, and Surat, Broach, Panch Maháls and Ahmedabad in the Gujarát Registration District. In the Southern District the birth-rate has generally risen, and in the other remaining Collectorates of the Central Division the difference is not very noticeable. Doubtless the prevalence of plague has affected the number of births—it can hardly be otherwise when the heavy mortality of both sexes between the ages of 20 and 50 is considered—but in view of the opinion that the decrease of the birth-rate in Gujarát is to be ascribed to the incidence of plague, it is remarkable that the birth-rate has been least affected in those districts where the incidence of plague has been heaviest. In Belgaum and Dhárwár, where the plague mortality reached the abnormal ratio of 45·37 and 42·26 per mille, respectively, the birth-rate appears to have risen. In Sholápur, Ahmednagar and Sátára, all badly affected districts, the difference is slight. In Khándesh and Poona the plague mortality was under 15 per mille, but the birth-rate has fallen conspicuously. Coming to Gujarát it is found that in Kaira, where the plague mortality was 23·64 per mille, the birth-rate has fallen from 34·68 to 32·75 per mille only. It seems apparent, therefore, that some other cause should have been sought for the difference in the birth ratios at Surat and other Gujarát districts where the birth-rate fell considerably and the plague mortality was comparatively low. If the great reduction in the number of births in 1903 is rightly attributable to plague, the manner in which the epidemic has operated seems to deserve more careful elucidation.

2. In Sind no explanation has been offered why the registration should have been worse than usual in Lárkhána and districts to the south and east of it, or why, if the inaccuracy in registration remained constant, the number of births should have decreased. It is noticeable that while elsewhere the recognised proportion of male to female births is fairly maintained, in Sind the male births vary from 116·98 in Karáchi to 138·74 in Hyderabad per 100 female births. In Karáchi and Sukkur towns it is noted the births have been well recorded, and the statistics of deaths seem to be kept well in all Sind towns appearing in Form No. VI. The attention of Collectors should be particularly invited to paragraphs 8 and 10 of the report. The low birth-rate in many towns cannot entirely be attributed to, nor excused by, difficulties due to plague.

3. The percentage of children still-born to born alive has risen in Kánara and is constant in Bombay. It would have been better had the Sanitary Commissioner mentioned the causes for the high figures instead of referring to a

report which is not available to the public. The reasons are in Bombay the same as mentioned for the high infant mortality, and as regards Kánara His Excellency the Governor in Council accepts the conclusion that the comparatively large number of still-births is due to the enfeeblement of the mothers by persistent malaria.

4. The terrible mortality from plague reached 281,269 deaths in 1903, of which 92,000 occurred in the two districts, Belgaum and Dhárwár, and 196,417 in seven districts including the above two of the Southern and Central

* 1901	...	...	537,875
1902	...	...	538,710
1903	...	...	580,258

Registration Districts. It affords little consolation that the mortality* from causes other than plague has remained below normal and nearly constant in the past three years.

5. The ratio of deaths recorded as due to fevers was slightly lower than in 1902. It is impossible to say, as the Sanitary Commissioner observes, to what heads the deaths attributed to fevers ought to be ascribed. Something, however, might be done in Municipal districts to obtain a more accurate description. In most of the towns in the Presidency proper for which statistics are given in Form VI, and which are only a few of the larger Municipalities, the death-rate from fevers was below 10 per mille. But towns in Gujarát are a notable exception. For of the 15 towns in Gujarát all, excepting Godhra and Dohad, return ratios above 10, varying from 10·88 in Ahmedabad Cantonment to 36·37 in Ahmedabad City and 36·80 in Dholka. In Ahmedabad City no less than 6,611 out of a total of 10,916 deaths are ascribed to fevers. No other town of any importance in the Presidency shows a record so disproportionate as this. In Ahmedabad also the deaths from respiratory diseases appear to have been 1,909 or 18 per cent. of the total deaths. These figures certainly lend colour to the supposition in paragraph 71 of the report that many of the latter class, and probably many of the former too, would more properly have been ascribed to plague. The subject has, it is hoped, received due consideration in the current year. The unhealthiness of Ahmedabad has lately been the subject of report, and the responsibilities of the Municipality in this connection cannot be too strongly impressed upon the Councillors.

6. The very high mortality among children of under five years of age is referred to in paragraphs 19 and 22. The infantile mortality in Bombay City has been the subject of special enquiry. The ratios in Bombay mentioned in paragraph 22 of the report are to some extent misleading from the practice of bringing to Bombay children while very young from the neighbouring districts to which the mothers went for their confinement. By the establishment of numerous dispensaries for the poor, which are well attended and appointing District nurses, the Health Department of the Bombay Municipality are doing much to supply the want of advice and of proper medical treatment of infants. But the result of these measures, it is feared, will be but small while the other causes mentioned in the report, to which must be added insanitary dwellings and overcrowding, are still at work. It is, however, very satisfactory to learn that the death-rate among young children has been steadily decreasing of late.

*Khándesh	...	154	per mille of 0·5 population in 1901.
Násik	..	130	" "
Ahmednagar	.	142	" "
Poona	...	108	" "
Sholápur	...	130	" "
Dhárwár	...	104	" "
Kaira	...	154	" "
Ahmedabad	..	170	" "

From Annual Form IV it appears that in several districts, notably† Khándesh, Násik, Ahmednagar, Poona, Sholápur, Dhárwár, Kaira and Ahmedabad, the mortality among children of under five years has been nearly as serious as in

Bombay, and merits the serious attention of the Sanitary Department and the local authorities. It should be noticed also that in Kaira alone of all the districts in the Presidency the deaths of female infants exceeded those of male infants, and in a more marked proportion than in 1902.

7. It is satisfactory to find that the mortality from small-pox was below the mean and was chiefly confined to Bombay City. The question of further extending compulsory vaccination has been suggested recently, but consideration of it is deferred until a sufficient supply of manufactured lymph is assured.

8. The attention of Collectors should be invited to the remarks of the Sanitary Commissioner in paragraph 69 of the report. The Surgeon General should be requested to send to the Sanitary Commissioner copies of Civil Surgeons' reports on the subject of measures taken against malarial fever, as requested in paragraph 53 of the report.

9. The figures in Appendix III referred to in paragraph 79 of the report show that in most cases the recorded average annual death-rate has been higher since the introduction of water-supply or drainage, but the statistics are much vitiated by plague epidemics and perhaps in other ways. The Sanitary Commissioner should endeavour to be able to remark on the subject more fully in his next report.

10. The prevalence of plague has interfered much with the work of the officers of the Sanitary Department and added to the difficulties with which they have always to contend in respect to sanitary inspection, registration and vaccination. His Excellency in Council is glad to record his appreciation of the manner in which all have performed their duties. The Port Health Department was ably administered by Lieut.-Colonel Crimmin and the officers under him.

J. SLADEN,

Acting Secretary to Government.

To

<p>The Surgeon General with the Government of Bombay, The Sanitary Commissioner for the Government of Bombay, The Health Officer of the Port of Bombay, The Sanitary Board, Bombay Presidency, The Commissioner in Sind, The Commissioners of Divisions, All Collectors and District Magistrates in the Presidency proper and Sind, The Municipal Commissioner for the City of Bombay, The Director of Land Records and Agriculture and Inspector General of Registration, The Deputy Adjutant General, Bombay Command, The Compiler, General Administration Report for 1903-04, The Chairman, Bombay Port Trust, The Revenue Department, The Marine Department, The Public Works Department, The Government of India (by letter No. 4540, dated the 27th August 1904), The Under Secretary of State for India (by letter), The Editors' Table, Bombay, The Editors' Table, Poona, The Editors' Table, Dhárwár, The Editors' Table, Belgaum, The Editors' Table, Karáchi,</p>	}	<p>With copies of the Report.</p>
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